Highlights of This Issue 1619

EDITORIAL

1621 Toward a New Era in Cancer Treatment: Message from the New Editor-in-Chief
John C. Reed

SPOTLIGHT IN CLINICAL RESPONSE

1623 Sustained Remission of Multicentric Castleman Disease in Children Treated with Tocilizumab, an Anti-Interleukin-6 Receptor Antibody
Caroline Galeotti, Adeline Boucheron, Séverine Guillaume, and Isabelle Kose-Paut

REVIEW

1627 DNA Damage Repair Pathways in Cancer Stem Cells
Marcello Maugeri-Sacca, Monica Bartucci, and Ruggero De Maria

THERAPEUTIC DISCOVERY

1637 SAR131675, a Potent and Selective VEGFR-3–TK Inhibitor with Antilymphangiogenic, Antitumoral, and Antimetastatic Activities
Antoine Alam, Isabelle Blanc, Geneviève Gueguen-Dorbes, Olivier Duclos, Jacques Bonnin, Pauline Barron, Marie-Claude Laplace, Gaelle Morin, Florence Gaujarengues, Frédérique Dol, Jean-Pascal Héaull, Paul Schaeffer, Pierre Savi, and Françoise Bono

1650 MEDI0639: A Novel Therapeutic Antibody Targeting Dll4 Modulates Endothelial Cell Function and Angiogenesis In Vivo

1661 Cotargeting Stress-Activated Hsp27 and Autophagy as a Combinatorial Strategy to Amplify Endoplasmic Reticular Stress in Prostate Cancer
Masafumi Kumanu, Junya Furukawa, Masaki Shiota, Anousheh Zardan, Fan Zhang, Eliana Beraldi, Romina M. Wiedmann, Ladan Fazli, Amina Zoubeidi, and Martin E. Gleave

1672 A Small-Molecule Inhibitor of Glucose Transporter 1 Downregulates Glycolysis, Induces Cell-Cycle Arrest, and Inhibits Cancer Cell Growth In Vitro and In Vivo
Yi Liu, Yanyan Cao, Weihe Zhang, Stephen Bergmeier, Yannrong Qian, Huzoor Akbar, Robert Colvin, Juan Ding, Lingying Tong, Shiyong Wu, Jennifer Hines, and Xiaozhuo Chen

1683 Targeting Subcellular Localization through the Polo-Box Domain: Non-ATP Competitive Inhibitors Recapitulate a PLK1 Phenotype
Campbell McInnes, Kara Estes, Merissa Baxter, Zhengguan Yang, Doaa Boshra Farag, Paul Johnston, John S. Lazo, Jianjun Wang, and Michael D. Wyatt

1693 New Use for an Old Drug: Inhibiting ABCG2 with Sorafenib
Yinxiang Wei, Yuanfang Ma, Qing Zhao, Zhiguan Ren, Yan Li, Tingjun Hou, and Hui Peng

1703 Growth Inhibition of Ovarian Tumor–Initiating Cells by Niclosamide
PRECLINICAL DEVELOPMENT

REST Is a Novel Prognostic Factor and Therapeutic Target for Medulloblastoma
Pete Taylor, Jason Fangusaro, Veena Rajaram, Stewart Goldman, Irene B. Helenowski, Tobey MacDonald, Martin Hasselblatt, Lars Riedemann, Alvaro Laureano, Laurence Cooper, and Vidya Gopalakrishnan

Pharmacogenomic Profiling and Pathway Analyses Identify MAPK-Dependent Migration as an Acute Response to SN38 in p53 Null and p53-Mutant Colorectal Cancer Cells

Molecular Mechanisms Involved in the Synergistic Interaction of the EZH2 Inhibitor 3-Deazaneplanocin A with Gemcitabine in Pancreatic Cancer Cells
Amir Avan, Francesco Crea, Elisa Paolicchi, Nicola Funel, Elena Galvani, Victor E. Marquez, Richard J. Honeywell, Romano Danesi, Godefridus J. Peters, and Elisa Giovannetti

Characterization of the Mechanism of Action of the Pan Class I PI3K Inhibitor NVP-BKM120 across a Broad Range of Concentrations
Saskia M. Brachmann, Julia Kleylein-Sohn, Swann Gaulis, Audrey Kauffmann, Marcel J.J. Blommers, Malika Kazic-Legueux, Laurent Laborde, Marc Hattenberger, Fabian Stauffer, Juliane Vaxelaire, Christopher Wilson, Thomas Brümmendorf, Christine Fritsch, Carlos Garcia-Echeverría, William R. Sellers, Francesco Hofmann, and Sauveur-Michel Maira

Targeting the PI3K/mTOR Axis, Alone and in Combination with Autophagy Blockade, for the Treatment of Malignant Peripheral Nerve Sheath Tumors
Markus P. Ghadimi, Gonzalez Lopez, Keila E. Torres, Roman Belousov, Eric D. Young, Jeffery Liu, Kari J. Brewer, Aviad Hoffmann, Kristelle Lusby, Alexander J. Lazar, Raphael E. Pollock, and Dina Lev

Sorafenib Inhibits Many Kinase Mutations Associated with Drug-Resistant Gastrointestinal Stromal Tumors
Michael C. Heinrich, Adrian Marino-Enriquez, Ajia Presnell, Rachel S. Donsky, Diana J. Griffith, Arin McKinley, Janice Patterson, Takahiro Taguchi, Cher-Wei Liang, and Jonathan A. Fletcher

The Checkpoint Kinase Inhibitor AZD7762 Potentiates Chemotherapy-Induced Apoptosis of p53-Mutated Multiple Myeloma Cells
Heather J. Landau, Samuel C. McNeely, Jayasree S. Nair, Raymond L. Comenzo, Takashi Asai, Hillel Friedman, Suresh C. Jhanwar, Stephen D. Nimer, and Gary K. Schwartz

Chemosensitization of Cancer Cells by KU-0060648, a Dual Inhibitor of DNA-PK and PI3K
Joanne M. Munck, Michael A. Batey, Yan Zhao, Helen Jenkins, Caroline J. Richardson, Celine Cano, Michele Tavecchio, Jody Barbeau, Julia Bardos, Liam Cornell, Roger J. Griffin, Keith Meneaud, Andrew Slade, Pia Thommes, Niall M.B. Martin, David R. Newell, Graeme C.M. Smith, and Nicola J. Curtin

The HSP90 Inhibitor, AT13387, Is Effective against Imatinib-Sensitive and -Resistant Gastrointestinal Stromal Tumor Models

CTLA-4 Blockade Expands Infiltrating T Cells and Inhibits Cancer Cell Repopulation during the Intervals of Chemotherapy in Murine Mesothelioma
Licun Wu, Zhihong Yun, Tetsuzo Tagawa, Katrina Rey-McIntyre, and Marc de Perrot
Phase I Study of Pazopanib in Combination with Paclitaxel and Carboplatin Given Every 21 Days in Patients with Advanced Solid Tumors
Howard A. Burris III, Afshin Dowlati, Rebecca A. Moss, Jeffrey R. Infante, Suzanne F. Jones, David R. Spigel, Kelly T. Levinson, Diana Lindquist, Shelby D. Gainer, Mohammed M. Dar, A. Benjamin Suttle, Howard A. Ball, and Antoinette R. Tan

Inhibition of Dendritic Cell Maturation by the Tumor Microenvironment Correlates with the Survival of Colorectal Cancer Patients following Bevacizumab Treatment
Adriana J. Michielsen, Sinead Noonan, Petra Martin, Miriam Tosetto, Joseph Marry, Monika Biniecka, Aoife A. Maguire, John M. Hyland, Kieran D. Sheahan, Diarmuid P. O’Donoghue, Hugh E. Mulcahy, David Fennelly, Elizabeth J. Ryan, and Jacintha N. O’Sullivan

ABOUT THE COVER
The polo-box domain (PBD) has critical roles in the mitotic functions of PLK1. Fragment ligated inhibitory peptides (FLIP) were generated with comparable affinity to peptide PBD inhibitors and possess antiproliferative phenotypes in cells consistent with the observed decrease in PLK1 centrosomal localization. FLIPs induced monopolar and multipolar spindles, in contrast to previously reported small molecule PBD inhibitors that display phenotypes only partially representative of PLK1 knockdown. PBD inhibitors retain high specificity for PLK1 over PLK3 and show the promise of non-ATP competitive kinase inhibitors as antitumor therapeutics. For details, see the article by McInnes and colleagues on page 1683.