Highlights of This Issue 1829

SPECIAL FEATURES

CCR Translations

1831  Natural Killer Cell–Based Immunotherapy in Acute Myeloid Leukemia: Lessons for the Future
Aura Muntasell and Miguel López-Botet
See related article, p. 1914

1834  Everything Old Is New Again: Using Nelfinavir to Radiosensitize Rectal Cancer
Raymond E. Meyn, Sunil Krishnan, and Heath D. Skinner
See related article, p. 1922

Molecular Pathways

1837  Molecular Pathways: Isocitrate Dehydrogenase Mutations in Cancer
Owen Clark, Katharine Yen, and Ingo K. Mellinghoff

CCR Focus

1844  Disruptive Immunology
Susan E. Bates

1845  Emerging Opportunities and Challenges in Cancer Immunotherapy
Theresa L. Whiteside, Sandra Demaria, Maria E. Rodríguez-Ruíz, Hassane M. Zarour, and Ignacio Melero

1856  Reversing T-cell Dysfunction and Exhaustion in Cancer
Hassane M. Zarour

1865  The Where, the When, and the How of Immune Monitoring for Cancer Immunotherapies in the Era of Checkpoint Inhibition
Priti S. Hegde, Vaios Karanikas, and Stefan Evers

1875  Making Better Chimeric Antigen Receptors for Adoptive T-cell Therapy
Marcela V. Maus and Carl H. June

1885  Targeting the Heterogeneity of Cancer with Individualized Neopeptide Vaccines
Özlem Türeci, Mathias Vormehr, Mustafa Diken, Sebastian Kreiter, Christoph Huber, and Uğur Sahin

1897  Dendritic Cell–Based Immunotherapy: State of the Art and Beyond
Kalijn F. Bol, Gerty Schreibelt, Winald R. Hutteman, I. Jolanda M. de Vries, and Carl G. Figdor

SPECIAL REPORT

1907  Research Priorities, Measures, and Recommendations for Assessment of Tobacco Use in Clinical Cancer Research
Stephanie R. Land, Benjamin A. Toll, Carol M. Moinpour, Sandra A. Mitchell, Jamie S. Ostroff, Dorothy K. Hatsukami, Sonia A. Duffy, Ellen R. Gritz, Nancy A. Rigotti, Ewan M. Anderson, Gina Brown, Susan Dutton, Sharon B. Love, Julia A. Schnabel, Phil Quirke, Ruth Muschel, William G. McKenna, Michael Partridge, and Ricky A. Sharma

CANCER THERAPY: CLINICAL

1914  Larger Size of Donor Alloreactive NK Cell Repertoire Correlates with Better Response to NK Cell Immunotherapy in Elderly Acute Myeloid Leukemia Patients
Antonio Curti, Loredana Ruggeri, Sarah Parisi, Andrea Bontadini, Elisa Dan, Maria Rosa Motta, Simona Rizzi, Sara Trabaneli, Darina Ocadlikova, Mariangela Lecciso, Valeria Giudice, Fiorenza Frutet, Elena Urbani, Cristina Papayannidis, Giovanni Martinelli, Giuseppe Bandini, Francesca Bonifazi, Russell E. Lewis, Michele Cavo, Andrea Velardi, and Roberto M. Lemoli
See related commentary, p. 1831

1922  Clinical Trial of Oral Nelfinavir before and during Radiation Therapy for Advanced Rectal Cancer
Esmé J. Hill, Corran Roberts, Jamie M. Franklin, Monica Enescu, Nicholas West, Thomas P. MacGregor, Kwan-Ye Chu, Lucy Boyle, Claire Blessing, Lai-Mun Wang, Somnath Mukherjee, Ewan M. Anderson, Gina Brown, Susan Dutton, Sharon B. Love, Julia A. Schnabel, Phil Quirke, Ruth Muschel, William G. McKenna, Michael Partridge, and Ricky A. Sharma
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1932 First-in-Human Phase I Study of GSK2126458, an Oral Pan-Class I Phosphatidylinositol-3-Kinase Inhibitor, in Patients with Advanced Solid Tumor Malignancies
Pamela Munster, Rahul Aggarwal, David Hong, Jan H.M. Schellens, Ruud van der Noll, Jennifer Specht, Petronella O. Witteveen, Theresa L. Werner, E. Claire Dees, Emily Bergsland, Neeraj Agarwal, Joseph F. Kleha, Michael Durante, Laurel Adams, Deborah A. Smith, Thomas A. Lampkin, Shannon R. Morris, and Razelle Kurzrok

1940 KDR Amplification Is Associated with VEGF-Induced Activation of the mTOR and Invasion Pathways but does not Predict Clinical Benefit to the VEGFR TKI Vandetanib
Monique B. Nilsson, Uma Giri, Jayanthi Gudikote, Ximing Tang, Wei Lu, Hai Tran, Youhong Fan, Andrew Koo, Lixia Diao, Pan Tong, Jing Wang, Roy Herbst, Bruce E. Johnson, Andy Ryan, Alan Webster, Philip Rowe, Ignacio I. Wistuba, and John V. Heymach

1951 Gemtuzumab Ozogamicin Reduces Relapse Risk in FLT3/ITD Acute Myeloid Leukemia: A Report from the Children’s Oncology Group

PERSONALIZED MEDICINE AND IMAGING

1958 The Stat3/5 Signaling Biosignature in Hematopoietic Stem/Progenitor Cells Predicts Response and Outcome in Myelodysplastic Syndrome Patients Treated with Azacitidine

1969 The Immune Checkpoint Regulator PD-L1 Is Highly Expressed in Aggressive Primary Prostate Cancer
Heidrun Gevensleben, Dimo Dietrich, Carsten Kolletz, Susanne Steiner, Maria Jung, Thore Thiesler, Michael Majores, Johannes Stein, Barbara Alth, Stefan Müller, Jörg Ellinger, Carsten Stephan, Klaus Jung, Peter Brossart, and Glen Kristiansen

CANCER THERAPY: PRECLINICAL

1978 Selective Toxicity of Investigational Ixazomib for Human Leukemia Cells Expressing Mutant Cytoplasmic NPM1: Role of Reactive Oxygen Species
Jacqueline S. Garcia, Min Huang, Bruno C. Medeiros, and Beverly S. Mitchell

1989 AGS16F Is A Novel Antibody Drug Conjugate Directed against ENPP3 for the Treatment of Renal Cell Carcinoma

2000 Mechanistic Investigation of Bone Marrow Suppression Associated with Palbociclib and its Differentiation from Cytotoxic Chemotherapies
Wenyue Hu, Tae Sung, Bart A. Jessen, Stephane Thibault, Martin B. Finkelstein, Nasir K. Khan, and Aida I. Sacan

2009 Taselisib (GDC-0032). a Potent β-Sparing Small Molecule Inhibitor of PI3K, Radiosensitizes Head and Neck Squamous Carcinomas Containing Activating PIK3CA Alterations

2020 Romidepsin and Azacitidine Synergize in their Epigenetic Modulatory Effects to Induce Apoptosis in CTCL
Sima Rozati, Phil F. Cheng, Daniel S. Widmer, Kazuyasu Fujii, Mitchell P. Levesque, and Reinhard Dummer

BIOLOGY OF HUMAN TUMORS

2032 An Immunogenetic Signature of Ongoing Antigen Interactions in Splenic Marginal Zone Lymphoma Expressing IGHV1-2*04 Receptors
ICAM-1–Related Noncoding RNA in Cancer Stem Cells Maintains ICAM-1 Expression in Hepatocellular Carcinoma
Weixing Guo, Shupeng Liu, Yuqiang Cheng, Lei Lu, Jie Shi, Guixia Xu, Nan Li, Kai Cheng, Mengchao Wu, Shuqin Cheng, and Shanrong Liu

Identification of CD25 as STAT5-Dependent Growth Regulator of Leukemic Stem Cells in Ph CML
Irina Sadovnik, Andrea Hoelbl-Kovacic, Harald Herrmann, Gregor Eisenwort, Sabine Cerny-Reiterer, Wolfgang Warsch, Wolfgang Hoermann, Georg Greiner, Katharina Blatt, Barbara Peter, Gabriele Stefanuz, Daniela Berger, Martin Bilban, Susanne Hemdlhofer, Heinz Sill, Wolfgang R. Sperr, Berthold Streubel, Christine Mannhalter, Tessa L. Holyoake, Veronika Sedl, and Peter Valent

Defects in the Fanconi Anemia Pathway in Head and Neck Cancer Cells Stimulate Tumor Cell Invasion through DNA-PK and Rac1 Signaling
Lindsey E. Romick-Rosendale, Elizabeth E. Hoskins, Lisa M. Privette Vinnedge, Grant D. Fogleson, Marion G. Brusadelli, Steven Potter, Kakajan Komurov, Samantha A. Brugmann, Paul F. Lambert, Randall J. Kimple, Elizabeth L. Virts, Helmut Hanenberg, Maura L. Gillison, and Susanne I. Wells

Genomic DNA Hypomethylation and Risk of Renal Cell Carcinoma: A Case–Control Study
Julia Mendoza-Perez, Jian Gu, Luis A. Herrera, Nizar M. Tannir, Shurena F. Matini, Jose A. Karam, Maosheng Huang, David W. Chang, Christopher G. Wood, and Xifeng Wu

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NOTCH1 and SOX10 are Essential for Proliferation and Radiation Resistance of Cancer Stem–Like Cells in Adenoid Cystic Carcinoma
Alex Panaccione, Michael T. Chang, Beatrice E. Carbone, Yan Guo, Christopher A. Moskaluk, Renu R. Virk, Luis Chiriboga, Manju L. Prasad, Benjamin Judson, Saral Mehra, Wendell G. Yarbrough, and Sergey V. Ivanov

ABOUT THE COVER
Expression of NOTCH1 (green) in cancer stem cells isolated from salivary adenoid cystic carcinoma. For details, see the article by Panaccione and colleagues on page 2083 of this issue.