Highlights of This Issue 1

SPECIAL FEATURES

CCR Translations

3 The Importance of Doing Trials Right While Doing the Right Trials
David M. Dilts and Steven K. Cheng
See article p. 256

6 Elusive Extraneural Estrogen Receptors in Breast Cancer
Ellis R. Levin
See article p. 118

CCR Drug Updates

9 Vemurafenib and BRAF Inhibition: A New Class of Treatment for Metastatic Melanoma
Jason J. Luke and F. Stephen Hodi

Molecular Pathways

15 Molecular Pathways: Targeting Proteasomal Protein Degradation in Cancer
Susan M. Molineaux

CCR Focus

22 On Drug Development, Chance, and the Prepared Mind
Susan E. Bates

23 Drug Development: Portals of Discovery
Susan E. Bates, Laleh Amiri-Kordestani, and Giuseppe Giaccone

33 BRAF Inhibitors for the Treatment of Metastatic Melanoma: Clinical Trials and Mechanisms of Resistance
Alexander Marzuka Alcala and Keith T. Flaherty

40 The Insulin Receptor/Insulin-Like Growth Factor Receptor Family as a Therapeutic Target in Oncology
Michael Pollak

51 Inhibitors Targeting Mitosis: Tales of How Great Drugs against a Promising Target Were Brought Down by a Flawed Rationale
Edina Komlodi-Pasztor, Dan L. Sackett, and Antonio Tito Fojo

HUMAN CANCER BIOLOGY

64 Hsp90 Molecular Chaperone Inhibitors: Are We There Yet?
Len Neckers and Paul Workman

77 Polycomb Repressor Complex-2 Is a Novel Target for Mesothelioma Therapy
Clinton D. Kemp, Mahadev Rao, Sichuan Xi, Suzanne Inchauste, Haresh Mani, Patricia Fetsch, Armando Filie, Mary Zhang, Julie A. Hong, Robert L. Walker, Yuelin J. Zhu, R. Taylor Ripley, Aarti Mathur, Fang Liu, Maocheng Yang, Paul A. Meltzer, Victor E. Marquez, Assunta De Rienzo, Raphael Bueno, and David S. Schrump

91 Eph-B2/Ephrin-B2 Interaction Plays a Major Role in the Adhesion and Proliferation of Waldenstrom's Macroglobulinemia
Feda Azaz, Abdel Kareem Azaz, Patricia Maiso, Teresa Calimeri, Ludmila Flores, Yang Liu, Phong Quang, Aldo M. Roccaro, Antonio Sacco, Hai T. Ngo, Yong Zhang, Britanny L. Morgan, Ruben D. Carrasco, and Irene M. Gholbrial

105 Costimulatory Protein 4IgB7I3 Drives the Malignant Phenotype of Glioblastoma by Mediating Immune Escape and Invasiveness
Dieter Lemke, Philipp-Niclas Pfennig, Felix Sahm, Ann-Catherine Klein, Tore Kempf, Uwe Warnken, Martina Schnöller, Ruxandra Tudoran, Michael Weller, Michael Platten, and Wolfgang Wick

118 Cytoplasmic Estrogen Receptor in Breast Cancer
Allison W. Welsh, Donald R. Lannin, Gregory S. Young, Mark E. Sherman, Jonine D. Figueroa, N. Lynn Henry, Lisa Ryden, Chungyueul Kim, Richard R. Love, Rachel Schiff, and David L. Rimm
See commentary p. 6

CANCER THERAPY: PRECLINICAL

127 STAT5A-Mediated SOCS2 Expression Regulates Jak2 and STAT3 Activity Following e-Src Inhibition in Head and Neck Squamous Carcinoma
Phenylarsine Oxide Induces Apoptosis in Bax- and Bak-Deficient Cells through Upregulation of Bim
Biyun Ni, Qi Ma, Baowei Li, Lixia Zhao, Yong Liu, Yushan Zhu, and Quan Chen

Synergistic Antitumor Activity of Anti-CD25 Recombinant Immunotoxin LMB-2 with Chemotherapy
Rajat Singh, Yujian Zhang, Ira Pastan, and Robert J. Kreitman

Modulation of the Tumor Microvasculature by Phosphoinositide-3 Kinase Inhibition Increases Doxorubicin Delivery In Vivo
Naseer Qayum, Jaehong Im, Michael R. Stratford, Eric J. Bernhard, W. Gillies McKenna, and Ruth J. Muschel

Antitumor Activity of NVP-BKM120—A Selective Pan Class I PI3 Kinase Inhibitor Showed Differential Forms of Cell Death Based on p53 Status of Glioma Cells
Dimpy Koul, Jun Fu, Ruijun Shen, Tiffany A. LaFortune, Shuzhen Wang, Ningyi Tiao, Yong-Wan Kim, Juinn-Lin Liu, Deepti Ramnarian, Ying Yuan, Carlos Garcia-Echevarria, Sauveur-Michel Maira, and W.K. Alfred Yung

Validation of Genetic Sequence Variants as Prognostic Factors in Early-Stage Head and Neck Squamous Cell Cancer Survival
Abul Kalam Azad, Isabelle Bairati, Elodie Samson, Dangxiao Cheng, Maryam Mirshams, Xin Qu, Sevtap Savas, John Waldron, Changshu Wang, David Goldstein, Wei Xu, Francois Meyer, and Geoffrey Liu

Noninvasive Detection of Breast Cancer Lymph Node Metastasis Using Carbonic Anhydrases IX and XII Targeted Imaging Probes

Early [18F]Fluorodeoxyglucose Positron Emission Tomography at Two Days of Gefitinib Treatment Predicts Clinical Outcome in Patients with Adenocarcinoma of the Lung

Lymphatic Invasion Is Independently Prognostic of Metastasis in Primary Cutaneous Melanoma
Xiaowei Xu, Lianjun Chen, DuPont Guerry, Peter R. Dawson, Wei-ting Hwang, Patricia Vanbelle, David E. Elder, Paul J. Zhang, Michael E. Ming, Lynn Schuchter, and Phyllis A. Gimotty

In Vivo Positron Emission Tomography Imaging of Protease Activity by Generation of a Hydrophobic Product from a Noninhibitory Protease Substrate

A Phase I Weekly Dosing Study of Brentuximab Vedotin in Patients with Relapsed/Refractory CD30-Positive Hematologic Malignancies
Michelle A. Fanale, Andres Forero-Torres, Joseph D. Rosenblatt, Ranjana H. Advani, Anna R. Franklin, Dana A. Kennedy, Tae H. Han, Eric L. Sievers, and Nancy L. Bartlett

Achieving Sufficient Accrual to Address the Primary Endpoint in Phase III Clinical Trials from U.S. Cooperative Oncology Groups

See commentary p. 3
Skin Tumors Induced by Sorafenib; Paradoxic RAS–RAF Pathway Activation and Oncogenic Mutations of HRAS, TP53, and TGFBR1
Jean Philippe Arnault, Christine Mateus, Bernard Escudier, Gorana Tomasic, Janine Wechsler, Emilie Hollville, Jean-Charles Soria, David Malka, Alain Sarasin, Magalie Larcher, Jocelyne André, Nyam Kamsu-Kom, Lise Boussemart, Ludovic Lacroix, Alain Spatz, Alexander M. Eggermont, Sabine Druillennec, Stephan Vagner, Alain Eychene, Nicolas Dumaz, and Caroline Robert

Concurrent Temozolomide and Dose-Escalated Intensity-Modulated Radiation Therapy in Newly Diagnosed Glioblastoma
Christina I. Tsien, Doris Brown, Daniel Normolle, Matthew Schipper, Morand Piert, Larry Junck, Jason Heth, Diana Gomez-Hassan, Randall K. Ten Haken, Thomas Chenevert, Yue Cao, and Theodore Lawrence

Molecular Determinants of Retinoic Acid Sensitivity in Pancreatic Cancer
Sonal Gupta, Dipankar Pramanik, Radha Mukherjee, Nathaniel R. Campbell, Sathyarayanan Elumalai, Roeland F. de Wilde, Seung-Mo Hong, Michael G. Goggins, Ana De Jesus-Acosta, Daniel Laheru, and Anirban Maitra

TP53 Disruptive Mutations Lead to Head and Neck Cancer Treatment Failure through Inhibition of Radiation-Induced Senescence
Heath D. Skinner, Vlad C. Sandulache, Thomas J. Ow, Raymond E. Meyn, John S. Yordy, Beth M. Beadle, Alison L. Fitzgerald, Uma Giri, K. Kian Ang, and Jeffrey N. Myers

Prognostic Significance of Plasma Osteopontin in Patients with Locoregionally Advanced Head and Neck Squamous Cell Carcinoma Treated on TROG 02.02 Phase III Trial
Annette M. Lim, Danny Rischin, Richard Fisher, Hongbin Cao, Kathleen Kwok, Daniel Truong, Grant A. McArthur, Richard J. Young, Amato Giaccia, Lester Peters, and Quynh-Thu Le

VKX3.1 Haploinsufficiency Is Prognostic for Prostate Cancer Relapse following Surgery or Image-Guided Radiotherapy
Jennifer A. Locke, Gaetano Zafarana, Adrian S. Ishkanian, Michael Milosevic, John Thoms, Cherry L. Have, Chad A. Mallof, Wan L. Lam, Jeremy A. Squire, Melanie Pintilie, Jenna Sykes, Varune Rohan Rammarine, Alice Meng, Omer Ahmed, Igor Jurisica, Theo van der Kwast, and Robert G. Bristow

LETTER TO THE EDITOR
A CDD Polymorphism as Predictor of Capecitabine-Induced Hand-Foot Syndrome—Letter
Joseph Ciccolini, Alexandre Evrard, and Bruno Lacarelle

Correction: Lysosomal Sequestration of Sunitinib: A Novel Mechanism of Drug Resistance

Correction: ABCB1 (MDR1) Polymorphisms and Progression-Free Survival among Women with Ovarian Cancer following Paclitaxel/Carboplatin Chemotherapy
ABOUT THE COVER

B7H3 represents a novel driver of gliomagenesis by mediating an
immunosuppressive and proinvasive phenotype in glioblastoma.
Immunofluorescence demonstrates the perivascularly (alpha-SMA staining;
red) enhanced expression of B7H3 (vesicular distribution; green) in human
glioblastoma tissue (nuclei staining; blue). For details, see the article by Lemke
and colleagues on page 105 of this issue.
Clinical Cancer Research

18 (1)


Updated version
Access the most recent version of this article at:
http://clincancerres.aacrjournals.org/content/18/1

E-mail alerts
Sign up to receive free email-alerts related to this article or journal.

Reprints and Subscriptions
To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions
To request permission to re-use all or part of this article, contact the AACR Publications Department at permissions@aacr.org.