Highlights of This Issue 553

REVIEW

555  New Paradigms in Microtubule-Mediated Endocrine Signaling in Prostate Cancer
Sucharita J. Mistry and William K. Oh

CHEMICAL THERAPEUTICS

567  A Novel Antiandrogen, Compound 30, Suppresses Castration-Resistant and MDV3100-Resistant Prostate Cancer Growth In Vitro and In Vivo
Hidetoshi Kuruma, Hiroaki Matsumoto, Masaki Shiota, Jennifer Bishop, Francois Lamoureux, Christian Thomas, David Briere, Gerrit Los, Martin Gleave, Andrea Fanjul, and Amina Zoubeidi

577  Dual PI3K/AKT/mTOR Inhibitor BEZ235 Synergistically Enhances the Activity of JAK2 Inhibitor against Cultured and Primary Human Myeloproliferative Neoplasm Cells
Warren Fiskus, Srdan Verstovsek, Taghi Manshouri, Jacqueline E. Smith, Karissa Peth, Sunil Abhyankar, Joseph McGuirk, and Kapil N. Bhalla

589  Afatinib Prolongs Survival Compared with Gefitinib in an Epidermal Growth Factor Receptor-Driven Lung Cancer Model
Takashi Ninomiya, Nagio Takigawa, Eiki Ichihara, Nobuaki Ochi, Toshi Murakami, Yoshihiro Honda, Toshi Kubo, Daisuke Minami, Kenichiro Kudo, Mitsune Tanimoto, and Katsuyuki Kiura

598  Tandutinib Inhibits the Akt/mTOR Signaling Pathway to Inhibit Colon Cancer Growth
Sivapriya Ponnurangam, David Standing, Parthasarathy Ranarajan, and Dharmalingam Subramaniam

610  Small-Molecule Inhibitors of Acetyltransferase p300 Identified by High-Throughput Screening Are Potent Anticancer Agents
Heng Yang, Christie E. Pinello, Jian Luo, Dawei Li, Yunfei Wang, Lisa Y. Zhao, Stephan C. Jahn, Sanjay Adrian Saldanha, Jamie Planck, Kyla R. Geary, Haiching Ma, Brian K. Law, William R. Roush, Peter Hodder, and Daiqing Liao

SMALL MOLECULE THERAPEUTICS

621  Spongian Diterpenoids Inhibit Androgen Receptor Activity
Yu Chi Yang, Labros G. Meimitis, Amy H. Tien, Nasrin R. Majii, Gavin Carr, Jun Wang, Raymond J. Andersen, and Marianne D. Sadar

632  Activity of the Fibroblast Growth Factor Receptor Inhibitors Dovitinib (TKI258) and NVP-BGJ398 in Human Endometrial Cancer Cells

643  Regression of Lung Cancer by Hypoxia-Sensitizing Ruthenium Polyppyridyl Complexes
Abhishek Yadav, Thamara Janaratne, Arthi Krishnan, Sharad S. Singhal, Sushma Yadav, Adam S. Dayoub, Doyle L. Hawkins, Sanjay Awasthi, and Frederick M. MacDonnell

644  Designing and Developing S100P Inhibitor 5-Methyl Cromolyn for Pancreatic Cancer Therapy

654  A Novel Sulindac Derivative Inhibits Lung Adenocarcinoma Cell Growth through Suppression of Akt/mTOR Signaling and Induction of Autophagy
Evrim Gurpinar, William E. Grizzle, John J. Shacka, Burton J. Mader, Nan Li, Nicholas A. Piazza, Suzanne Russo, Adam B. Keeton, and Gary A. Piazza

663  Activity of a Py–Im Polyamide Targeted to the Estrogen Response Element
Nicholas G. Nickols, Jerzy O. Szabolowski, Amanda E. Hargrove, Benjamin C. Li, Jevgenij A. Raskatov, and Peter B. Dervan
LARGE MOLECULE THERAPEUTICS

685 | A Novel Monoclonal Antibody to Secreted Frizzled-Related Protein 2 Inhibits Tumor Growth
Emily Fontenot, Emma Rossi, Russell Mumper, Stephanie Snyder, Sharareh Siamakpour-Reihani, Ping Ma, Eleanor Hilliard, Bradley Bone, David Ketelsen, Charlene Santos, Cam Patterson, and Nancy Klauber-DeMore

CANCER THERAPEUTICS INSIGHTS

696 | ALK Inhibitor PF02341066 (Crizotinib) Increases Sensitivity to Radiation in Non–Small Cell Lung Cancer Expressing EML4-ALK
Yunguang Sun, Kamila A. Nowak, Nicholas G. Zaorsky, Chia-Lin Winchester, Kunal Dalal, Nicholas J. Giacalone, Ningbo Liu, Maria Werner-Wasik, Mariusz A. Wasik, Adam P. Dicker, and Bo Lu

705 | The Efficacy of CHK1 Inhibitors Is Not Altered by Hypoxia, but Is Enhanced after Reoxygenation
Grete Hasvold, Viola Nahse-Kumpf, Kinga Tkacz-Stachowska, Einar K. Rofstad, and Randi G. Syljaa

717 | Colorectal Cancer Cells Refractory to Anti-VEGF Treatment Are Vulnerable to Glycolytic Blockade due to Persistent Impairment of Mitochondria
Jie Xu, Jinli Wang, Bin Xu, Haiyan Ge, Xiaolin Zhou, and Jing-Yuan Fang

725 | Small-Molecule Inhibitor BMS-777607 Induces Breast Cancer Cell Polyploidy with Increased Resistance to Cytotoxic Chemotherapy Agents
Sharad Sharma, Jun-Ying Zeng, Chun-Mei Zhuang, Yong-Qing Zhou, Hang-Ping Yao, Xing Hu, Ruiwen Zhang, and Ming-Hai Wang

737 | γ-Box Binding Protein-1 Contributes to Both HER2/ErbB2 Expression and Lapatinib Sensitivity in Human Gastric Cancer Cells
Tomohiro Shibata, Hitoshi Kan, Yuichi Murakami, Hiroki Ureshino, Katsuhiko Tatsumi, Akira Sonoda, Masayoshi Sato, Hiroyuki Hattori, Mayumi Ono, and Michihiko Kuwano

747 | Bortezomib and SAHA Synergistically Induce ROS-Driven Caspase-Dependent Apoptosis of Nasopharyngeal Carcinoma and Block Replication of Epstein–Barr Virus
Kwai Fung Hui, Benjamin H.W. Lam, Dona N. Ho, Sai Wah Tsao, and Alan K.S. Chang

759 | Targeting FoxM1 Effectively Retards p53-Null Lymphoma and Sarcoma
Zebin Wang, Yu Zheng, Hyun Jung Park, Jing Li, Janai R. Carr, Yi-ju Chen, Megan M. Kiefer, Dragana Kopanja, Srilata Bagchi, Angela L. Tyner, and Pradip Raychaudhuri

768 | Inhibition of Mutant GNAQ Signaling in Uveal Melanoma Induces AMPK-Dependent Autophagic Cell Death
Grazia Ambrosini, Elgilda Musi, Alan L. Ho, Elisa de Stanchina, and Gary K. Schwartz

777 | Crizotinib Induces PUMA-Dependent Apoptosis in Colon Cancer Cells
Xingnan Zheng, Kan He, Lin Zhang, and Jian Yu

787 | Impact of Tumor Vascularity on Responsiveness to Antiangiogenesis in a Prostate Cancer Stem Cell-Derived Tumor Model
Kexiong Zhang and David J. Waxman

799 | Targeting CXCR2 Enhances Chemotherapeutic Response, Inhibits Mammary Tumor Growth, Angiogenesis, and Lung Metastasis
Bhawna Sharma, Dhananjay M. Nawandar, Kalyan C. Nannuru, Michelle L. Varney, and Rakesh K. Singh

809 | A Phase II Study of Temozolomide in Patients with Advanced Aerodigestive Tract and Colorectal Cancers and Methylation of the O6-Methylguanine-DNA Methyltransferase Promoter
Daniel Hochhauser, Rob Glyne-Jones, Vanessa Potter, Cristina Grávalos, Thomas J. Doyle, Kumudru Pathiraja, Qiong Zhang, Ling Zhang, and Edward A. Sausville

TOOLS & TECHNOLOGIES

819 | [18F]-FLT Positron Emission Tomography Can Be Used to Image the Response of Sensitive Tumors to PI3-Kinase Inhibition with the Novel Agent GDC-0941
Christopher Cawthorne, Natalie Burrows, Roben G. Giedling, Christopher J. Morrow, Duncan Forster, Jamil Gregory, Marc Radigois, Alison Smigova, Muhammad Babur, Kathryn Simpson, Cassandra Hodgkinson, Gavin Brown, Adam McMahon, Caroline Dive, Duncan Hiscock, Ian Wilson, and Kaye J. Williams
ABOUT THE COVER

Mitochondria is the powerhouse of cells (structure, green), supplying the majority of ATP that is essential for cell survival. However, cancer cells present a distinct glycolytic metabolism profile (Warburg effect), which is linked to the malignant transformation process. The emerging anti-VEGF therapy fights cancers by starving the energy supplement, but it was found to enhance the Warburg effect and induce even more aggressive phenotypes. Cancer cells with acquired resistance to anti-VEGF therapy display impaired mitochondria structure and hyperactive glycolytic metabolism, which render them vulnerable to glycolysis blockade therapy. For details, see article by Xu and colleagues on page 717.
Molecular Cancer Therapeutics

12 (5)


Updated version
Access the most recent version of this article at:
http://mct.aacrjournals.org/content/12/5

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.