New Paradigms in Microtubule-Mediated Endocrine Signaling in Prostate Cancer

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CHEMICAL THERAPEUTICS

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 Lameureux, Christian Thomas, David Briere, Gerrit Los, Martin Gleave, Andrea Fanjul, and Amina Zoubeidi

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

Afinatinib 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 Kudo, Daisuke Minami, Kenichiro Kudo, Mitsune Tanimoto, and Katsuyuki Kiura

Tandutinib Inhibits the Akt/mTOR Signaling Pathway to Inhibit Colon Cancer Growth

Sivapriya Ponnurangam, David Standing, Parthasarathy Rangarajan, and Dharmalingam Subramaniam

Small-Molecule Inhibitors of Acetyltransferase p300 Identified by High-Throughput Screening Are Potent Anticancer Agents

Heng Yang, Christie E. Pinello, Jian Luo, Da Wei 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, and Daiqing Liao
**LARGE MOLECULE THERAPEUTICS**

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**

ALK Inhibitor PF02341066 (Crizotinib) Increases Sensitivity to Radiation in Non–Small Cell Lung Cancer Expressing EML4-ALK

Yunguang Sun, Kamila A. Nowak, Nicholas C. Zaorsky, Chia-Lin Winchester, Kunal Dalal, Nicholas J. Giacalone, Ningbo Liu, Maria Werner-Wasik, Mariusz A. Wasik, Adam P. Dicker, and Bo Lu

The Efficacy of CHK1 Inhibitors Is Not Altered by Hypoxia, but Is Enhanced after Reoxygenation

Grete Hasvold, Viola Næsbe-Kumpf, Kinga Tkacz-Stachowska, Einar K. Rofstad, and Randi G. Syljåsen

Colorectal Cancer Cells Refractory to Anti-VEGF Treatment Are Vulnerable to Glycolytic Blockade due to Persistent Impairment of Mitochondria

Jie Xu, Jilin Wang, Bin Xu, Haiyan Ge, Xiaolin Zhou, and Jing-Yuan Fang

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

Y-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, Kisuake Watari, Akihiko Kawahara, Masayoshi Kage, Satoshi Hattori, Mayumi Ono, and Michihiko Kuwano

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. Chiang

**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

**INHIBITION OF MUTANT GNAQ SIGNALING IN UVEAL MELANOMA INDUCES AMPK-DEPENDENT AUTOPHAGIC CELL DEATH**

Grazia Ambrosini, Elgidula Musti, Alan L. Ho, Elisa de Stanchina, and Gary K. Schwartz

**CRIZOTINIB INDUCES PUMA-DEPENDENT APOPTOSIS IN COLON CANCER CELLS**

Xingnan Zheng, Kan He, Lin Zhang, and Jian Yu

**IMPACT OF TUMOR VASCULARITY ON RESPONSIVENESS TO ANTIANGIOGENESIS IN A PROSTATE CANCER STEM CELL-DERIVED TUMOR MODEL**

Kexiong Zhang and David J. Waxman

**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

**A PHASE II STUDY OF TEMOZOLOMIDE IN PATIENTS WITH ADVANCED AERO DIGESTIVE TRACT AND COLORECTAL CANCERS AND METHYLATION OF THE O6-METHYLGUANINE-DNA METHYLTRANSFERASE PROMOTER**

Daniel Hochhauser, Rob Glynn-Jones, Vanessa Potter, Cristina Grávalos, Thomas J. Doyle, Kumudu Pathiraja, Qing Zhang, Ling Zhang, and Edward A. Sausville

**[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. Gieling, Christopher J. Morrow, Duncan Forster, Jamil Gregory, Marc Radiogis, Alison Smigova, Muhammad Babur, Kathryn Simpson, Cassandra Hodkinson, Gavin Brown, Adam McMahon, Caroline Dive, Duncan Hiscock, Ian Wilson, and Kaye J. Williams

**TOOLS & TECHNOLOGIES**

TOOLs & TECHNOLOGIES
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.