New Insights into Molecular Mechanisms of Sunitinib-Associated Side Effects
Guadalupe Aparicio-Gallego, Moisés Blanco, Angélica FIGUEROA, Rosario García-Campelo, Manuel Valladares-Ayerve, Enrique Grande-Pulido, and Luis Antón-Aparicio

Artesunate Induces Oxidative DNA Damage, Sustained DNA Double-Strand Breaks, and the ATM/ATR Damage Response in Cancer Cells
Nicole Berdelle, Teodora Nikolova, Steve Quiros, Thomas Efferth, and Bernd Kaina

Direct Role of Adiponectin and Adiponectin Receptors in Endometrial Cancer: In Vitro and Ex Vivo Studies in Humans
Hyun-Seuk Moon, John P. Chamberland, Konstantinos Aronis, Sofia Tseleni-Balafouta, and Christos S. Mantzoros

Inhibition of SAPK2/p38 Enhances Sensitivity to mTORC1 Inhibition by Blocking IRES-Mediated Translation Initiation in Glioblastoma
Cheri Cloninger, Andrew Bernath, Tariq Bashir, Brent Holmes, Nicholas Artinian, Teresa Ruegg, Lauren Anderson, Janine Masri, Alan Lichtenstein, and Joseph Gera

Acquisition of Resistance toward HYD1 Correlates with a Reduction in Cleaved α4 Integrin Expression and a Compromised CAM-DR Phenotype
Michael F. Emmons, Anthony W. Gebhard, Rajesh R. Nair, Rachid Baz, Mark L. McLaughlin, Anne E. Cress, and Lori A. Hazlehurst

Characterization of the Cellular and Antitumor Effects of MPI-0479605, a Small-Molecule Inhibitor of the Mitotic Kinase Mps1
Keith D. Tardif, Aaron Rogers, Jared Cassiano, Bruce L. Roth, Daniel M. Cimbora, Rena McKinnon, Ashley Peterson, Thomas B. Douce, Rosann Robinson, Irene Dorweiler, Thaylon Davis, Mark A. Hess, Kirill Ostanin, Damon I. Papac, Vijay Baichwal, Ian McAlester, J. Adam Willardsen, Michael Saunders, Hoarau Christophe, D. Vijay Kumar, Daniel A. Wettstein, Robert O. Carlson, and Brandi L. Williams

Integrin α6high Cell Population Functions as an Initiator in Tumorigenesis and Relapse of Human Liposarcoma
Lu Wang, Lingxian Wang, Yanhong Gu, Yongqian Shu, Yan Shen, and Qiang Xu

Micelle-Encapsulated Thiostrepton as an Effective Nanomedicine for Inhibiting Tumor Growth and for Suppressing FOXM1 in Human Xenografts
Ming Wang and Andrei L. Gartel

Cabozantinib (XL184), a Novel MET and VEGFR2 Inhibitor, Simultaneously Suppresses Metastasis, Angiogenesis, and Tumor Growth
Reduced Expression of the Androgen Receptor by Third Generation of Antisense Shows Antitumor Activity in Models of Prostate Cancer
Yixian Zhang, Stephen Castaneda, Melissa Dumble, Maoliang Wang, Mary Mileski, Zhengxing Qu, Steven Kim, Victoria Shi, Patricia Kraft, Ying Gao, Jenny Pak, Puja Sapra, Raj Bandaru, Hong Zhao, Robert L. Vessella, Ivan D. Horak, and Lee M. Greenberger

The Clinically Active PARP Inhibitor AG014699 Ameliorates Cardiotoxicity but Does Not Enhance the Efficacy of Doxorubicin, despite Improving Tumor Perfusion and Radiation Response in Mice

Differential Expression of Uridine Phosphorylase in Tumors Contributes to an Improved Fluoropyrimidine Therapeutic Activity
Deliang Cao, Amy Ziendra, James McCabe, Ruilan Yan, Laxiang Wan, Bradford Kim, Michael Gach, Stuart Flynn, and Giuseppe Pizzorno

The Bcl-2/Bcl-XL/Bcl-w Inhibitor, Navitoclax, Enhances the Activity of Chemotherapeutic Agents In Vitro and In Vivo

Dual Inhibition of Tumor Energy Pathway by 2-Deoxyglucose and Metformin Is Effective against a Broad Spectrum of Preclinical Cancer Models
Jae-Ho Cheong, Eun Sung Park, Jiyoung Liang, Jennifer B. Dennon, Dimitra Tsavachidou, Catherine Nguyen-Charles, Kwai Wa Cheng, Hassan Hall, Dong Zhang, Yiling Lu, Murali Ravoori, Vikas Kundra, Jaffer Ajani, Ju-Seog Lee, Waun Ki Hong, and Gordon B. Mills

Vitamin E δ-Tocotrienol Augments the Antitumor Activity of Gemcitabine and Suppresses Constitutive NF-κB Activation in Pancreatic Cancer
Kazim Husain, Ronia A. Francois, Teruo Yamauchi, Marta Perez, Said M. Sehti, and Mokenge P. Malafa

MOLECULAR MEDICINE IN PRACTICE

GDC-0980 Is a Novel Class I PI3K/mTOR Kinase Inhibitor with Robust Activity in Cancer Models Driven by the PI3K Pathway

The Novel Bcl-2 Inhibitor ABT-737 Is More Effective in Hypoxia and Is Able to Reverse Hypoxia-Induced Drug Resistance in Neuroblastoma Cells
Tetyana Klymenko, Martin Brandenburg, Christopher Morrow, Caroline Dive, and Guy Makin

Therapeutic Potential of AZD1480 for the Treatment of Human Glioblastoma
Brad C. McFarland, Jing-Yuan Ma, Catherine P. Langford, G. Yancey Gillespie, Hao Yu, Ying Zheng, Susan E. Nozell, Dennis Huszar, and Etty N. Benveniste

Death Receptor Pathway Activation and Increase of ROS Production by the Triple Epigenetic Inhibitor UV5008
Angela Nebbioso, Raquel Pereira, Harshal Khanwalkar, Filomena Matarrese, José García-Rodríguez, Marco Miceli, Colin Logie, Valerie Kedinger, Felicetto Ferrara, Hendrik G. Stunnenberg, Angel R. de Lera, Hinrich Gromemeyer, and Lucia Altucci

Targeting Radiation-Induced G2 Checkpoint Activation with the Wee-1 Inhibitor MK-1775 in Glioblastoma Cell Lines
Bhaswati Sarcar, Soumen Kahali, Antony H. Prabhu, Stuart D. Shumway, Yang Xu, Tim Demuth, and Prakash Chinnaiyan

The NEDD8-Activating Enzyme Inhibitor, MLN4924, Cooperates with TRAIL to Augment Apoptosis through Facilitating c-FLIP Degradation in Head and Neck Cancer Cells
Libian Zhao, Ping Yue, Sagar Lonial, Fadlo R. Khuri, and Shi-Yong Sun
Akt/mTOR Counteract the Antitumor Activities of Cixutumumab, an Anti-Insulin–like Growth Factor I Receptor Monoclonal Antibody

Dong Hoon Shin, Hye-Young Min, Adel K. El-Naggar, Scott M. Lippman, Bonnie Glisson, and Ho-Young Lee

ABOUT THE COVER

Human lung microvascular cells cocultured with human diploid fibroblasts form extensive networks of tubules in response to VEGF that can be visualized by immunostaining for CD31, an endothelial cell marker. In the presence of cabozantinib (XL184), a small-molecule kinase inhibitor with potent activity toward MET and VEGF receptor 2, it was found that tubule formation was inhibited in the absence of cytotoxicity. Similarly, cabozantinib inhibited tubule formation in response to conditioned media derived from tumor cell cultures, suggesting that secreted tumor cell-derived proangiogenic growth factors are unable to circumvent inhibition of tubule formation by cabozantinib. For details, see article by Yakes and colleagues on page 2298.