PRMT1-Mediated Translation Regulation Is a Crucial Vulnerability of Cancer
Jessie Hao-Ru Hsu, Benjamin Hubbell-Engler, Guillaume Adelmant, Jialiang Huang, Cailin E. Joyce, Francisca Vazquez, Barbara A. Weir, Philip Montgomery, Aviad Tshemiak, Andrew O. Giacomelli, Jennifer A. Perry, Jennifer Tiowbridge, Yuko Fujiwara, Glenn S. Cowley, Huafeng Xie, Woonjin Kim, Carl D. Novina, William C. Hahn, Jarrod A. Marto, and Stuart H. Orkin

Précis: These findings provide a rationale for targeting the arginine methyltransferase Prmt1, a regulator of protein translation, as a strategy to eradicate cancer cells, which commonly display unique translation-dependent requirements.

Targeting Histone Demethylases in MYC-Driven Neuroblastomas with Ciclopirox

Précis: These findings provide new insights into epigenetic regulation of MYC function and suggest a novel pharmacologic basis to target histone demethylases as an indirect MYC-targeting approach for cancer therapy.

Resistance to the Antibody–Drug Conjugate T-DM1 Is Based in a Reduction in Lysosomal Proteolytic Activity
Carla Ríos-Luci, Sara García-Alonso, Elena Díaz-Rodríguez, Mercedes Nadal-Serrano, Joaquin Arribas, Alberto Ocaña, and Atanasio Pandiella

Précis: Drug resistance that arises invariably to cancer cell–targeted therapy also poses a challenge to antibody–drug conjugates, in this case through a novel mechanism involving alterations in the lysosome-based proteolytic activity.

LSD1 Inhibitor T-3775440 Inhibits SCLC Cell Proliferation by Disrupting LSD1 Interactions with SNAG Domain Proteins INSM1 and GFI1B
Shinji Takagi, Yoshinori Ishikawa, Akio Mizutani, Shinji Iwasaki, Satoru Matsumoto, Yusuke Kamada, Toshiyuki Nomura, and Kazuhide Nakamura

Précis: These findings provide insights into how the interaction between LSD1 and SNAG domain proteins regulates transcription in neuroendocrine tumors and also offer a preclinical proof of concept for the therapeutic efficacy of targeting LSD1 in this setting.

WEE1 Kinase Inhibitor AZD1775 Has Preclinical Efficacy in LKB1-Deficient Non–Small Cell Lung Cancer
Amanda L. Richer, Jacqueline M. Cala, Kelley O’Brien, Yashti M. Carson, Landon J. Inge, and Timothy C. Whitsett

Précis: These findings provide a preclinical proof of concept for the use of a G2-M checkpoint inhibitor to effectively treat a particularly aggressive subgroup of lung adenocarcinomas.

Targeting Adenosine in BRAF-Mutant Melanoma Reduces Tumor Growth and Metastasis
Arabella Young, Shin Foong Ngio, Jason Madore, Julia Reinhardt, Jennifer Landsberg, Arash Chitsazan, Jai Rautela, Tobias Bald, Deborah S. Barkauskas, Elizabeth Ahern, Nicholas D. Huntington, Dirk Schadendorf, Georgina V. Long, Glen M. Boyle, Michael Hölzel, Richard A. Scolyer, and Mark J. Smyth

Précis: In melanoma, combining an antagonist of the immunosuppressive adenosine receptor A2A with BRAF and MEK inhibitors augments antitumor immunity to limit metastatic progression.

MAPK Signaling and Inflammation Link Melanoma Phenotype Switching to Induction of CD73 during Immunotherapy

Précis: These findings indicate development of resistance to immunotherapy in melanoma and caution against CD73 expression as a pretreatment biomarker.
Cancer Research

77 (17)

Cancer Res 2017;77:4543-4737.

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