This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lymphoma	MicroRNA-29 (miR-29); c-Myc (MYC); histone deacetylase 3 (HDAC3); enhancer of zeste homolog 2 (EZH2)	<p><i>In vitro</i> and mouse studies suggest increasing miR-29 expression by combined inhibition of HDAC3 and EZH2 could help treat MYC-overexpressing cancers. In lymphoma cells, MYC, HDAC3 and EZH2 interacted with the miR-29 promoter region, and MYC upregulation correlated with miR-29 downregulation. In the cells, small interfering RNA targeting HDAC3 and EZH2 increased miR-29 expression and decreased colony formation compared with separate targeting of either HDAC3 or EZH2. In mouse xenograft models of human lymphoma, inhibition or genetic knockdown of <i>HDAC3</i> and <i>EZH2</i> decreased tumor size compared with inhibition or knockdown of either target alone. Next steps include developing HDAC3 and EZH2 inhibitors.</p> <p>Epizyme Inc. has EZH2 inhibitors including EPZ5687 in preclinical development for cancer. Constellation Pharmaceuticals Inc. has EZH2 inhibitors in preclinical development for cancer.</p> <p>SciBX 5(45); doi:10.1038/scibx.2012.1181 Published online Nov. 15, 2012</p>	Unpatented; unavailable for licensing	<p>Zhang, X. <i>et al. Cancer Cell</i>; published online Oct. 16, 2012; doi:10.1016/j.ccr.2012.09.003</p> <p>Contact: Jianguo Tao, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Fla. e-mail: jianguo.tao@moffitt.org</p>