This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute myelogenous leukemia (AML)	Lysine-specific histone demethylase 1 (KDM1A; LSD1)	<p><i>In vitro</i> and mouse studies suggest inhibiting LSD1 could help treat the mixed lineage leukemia (MLL) subtype of AML. <i>In vitro</i>, small molecule analogs of tranlycypromine inhibited LSD1 with nanomolar IC₅₀ values, whereas the parent compound inhibited LSD1 with an IC₅₀ of about 15 µM. In a mouse model of MLL, a tranlycypromine analog decreased circulating AML cell counts compared with vehicle. Next steps include further studying the effect of LSD1 inhibition in different AML subtypes.</p> <p>Tranlycypromine is a generic monoamine oxidase inhibitor (MAOI) marketed to treat depression. Oryzon Genomics has tranlycypromine analogs in preclinical development for cancer. The company was not involved in this work, but the tranlycypromine analogs were synthesized by the Cancer Research UK group based on a patent application filed by the company.</p> <p>Epi Pharmaceuticals Inc. has polyamine-based LSD1 inhibitors in preclinical development for cancer.</p> <p>Salarius Pharmaceuticals LLC's SP-2528, a selective LSD1 inhibitor, is in preclinical development for cancer.</p> <p>SciBX 5(14); doi:10.1038/scibx.2012.356 Published online April 5, 2012</p>	Unpatented; licensing status not applicable	<p>Harris, W.J. <i>et al. Cancer Cell</i>; published online March 29, 2012; doi:10.1016/j.ccr.2012.03.014</p> <p>Contact: Tim C.P. Somervaille, Cancer Research UK and The University of Manchester, Manchester, U.K. e-mail: tsomervaille@picr.man.ac.uk</p>