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>Cell culture and mouse studies suggest inhibition of LSD1 in combination with all-<i>trans</i> retinoic acid (ATRA) could help treat AML. In a xenograft mouse model of AML, ATRA plus tranilcypromine, a nonspecific inhibitor of LSD1 and other monoamine oxidases, decreased tumor engraftment compared with ATRA alone. In an AML cell line that mimics leukemia-initiating cells, tranilcypromine plus ATRA induced differentiation and subsequent apoptosis, whereas ATRA alone did not. Ongoing studies include Phase II testing of tranilcypromine plus ATRA in AML patients.</p> <p>Tranilcypromine is a generic monoamine oxidase inhibitor (MAOI) marketed to treat depression. Oryzon Genomics and Epi Pharmaceuticals Inc. have specific 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(12); doi:10.1038/scibx.2012.302 Published online March 22, 2012</p>	Unpatented; licensing status not applicable	<p>Schenk, T. <i>et al. Nat. Med.</i>; published online March 11, 2012; doi:10.1038/nm.2661</p> <p>Contact: Arthur Zelent, The Institute of Cancer Research, Sutton, U.K. e-mail: arthur.zelent@icr.ac.uk</p>