This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Hematologic malignancies	CXC chemokine receptor 4 (CXCR4; NPY3R)	<p><i>In vitro</i> and mouse studies identified cell-penetrating inhibitors of CXCR4 that could help treat hematologic malignancies. In leukemia and lymphoma cells from patients, the anti-CD20 antibody Rituxan rituximab plus a lipopeptide CXCR4 antagonist increased apoptosis compared with either compound alone. In a xenograft mouse model of disseminated lymphoma, Rituxan plus the CXCR4 antagonist prolonged survival compared with either treatment alone. Next steps include IND-enabling studies. Rituxan, from Biogen Idec Inc. and the Genentech Inc. subsidiary of Roche, is marketed for a variety of autoimmune diseases and hematological cancers.</p> <p>At least nine companies have CXCR4 antagonists in development stages ranging from preclinical to marketed.</p> <p>SciBX 5(2); doi:10.1038/scibx.2012.39 Published online Jan. 12, 2012</p>	Patent applications covering CXCR4 antagonists filed by Tufts University and Anchor Therapeutics Inc.; licensed to Anchor Therapeutics; available for partnering	<p>O'Callaghan, K. <i>et al. Blood</i>; published online Dec. 20, 2011; doi:10.1182/blood-2011-04-347518</p> <p>Contact: Athan Kuliopulos, Tufts Medical Center, Boston, Mass. e-mail: athan.kuliopulos@tufts.edu</p>