This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune disease	Bromodomain containing 2 (BRD2); BRD4	<p>Cell culture and mouse studies suggest inhibiting the BET bromodomains of BRD2 and BRD4 could be useful for treating autoimmune disease. In cultured human T cells, a small molecule BET bromodomain inhibitor decreased expression of proinflammatory cytokines and differentiation of inflammation-associated T helper type 17 (Th17) cells compared with vehicle. In chromatin immunoprecipitation studies of murine T cells, the BET bromodomain inhibitor prevented the binding of BRD2 and BRD4 to the IL-17 locus. In mouse models of rheumatoid arthritis (RA) and multiple sclerosis (MS), the BET bromodomain inhibitor decreased inflammation and autoimmunity compared with vehicle control. Next steps could include preclinical development of BET bromodomain inhibitors for autoimmune indications.</p> <p>At least seven companies including Constellation Pharmaceuticals Inc. have BET bromodomain inhibitors in preclinical through Phase II development for oncology and other indications including inflammatory diseases.</p> <p>SciBX 6(45); doi:10.1038/scibx.2013.1283 Published online Nov. 21, 2013</p>	Patent and licensing status undisclosed	<p>Mele, D.A. <i>et al. J. Exp. Med.</i>; published online Oct. 7, 2013; doi:10.1084/jem.20130376</p> <p>Contact: Jose M. Lora, Constellation Pharmaceuticals Inc., Cambridge, Mass. e-mail: jose.lora@constellationpharma.com</p>