This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune disease	Chemokine CXC motif ligand 10 (CXCL10; IP-10); CXC chemokine receptor 3 (CXCR3)	<p>Human sample and mouse studies suggest inhibiting CXCL10 could help treat vitiligo. Depigmentation in the skin of patients with vitiligo is caused by CD8⁺ T cell-induced melanocyte death. In lesion biopsies from patients with vitiligo, compared with skin biopsies from healthy individuals, CXCL10 expression was increased. In blood samples from patients, but not in samples from healthy controls, CXCR3—the CXCL10 receptor—was expressed on CD8⁺ T cells. In a mouse model of vitiligo, an anti-CXCL10 antibody decreased depigmentation compared with an anti-CXCL9 (MIG) antibody or saline, and in animals with established disease the antibody increased repigmentation. Next steps include investigating chemical and antibody-mediated inhibition of CXCL10, CXCR3 or both in mouse models of vitiligo. Bristol-Myers Squibb Co.'s MDX-1100, a human mAb against CXCL10, is in Phase II testing to treat inflammatory bowel disease (IBD) and rheumatoid arthritis (RA). Novimmune S.A.'s CXCL10-binding mAb, NI-0801, is in Phase II trials to treat cirrhosis and liver disease.</p> <p>SciBX 7(11); doi:10.1038/scibx.2014.306 Published online March 20, 2014</p>	Unpatented; licensing status not applicable	<p>Rashighi, M. <i>et al. Sci. Transl. Med.</i>; published online Feb. 12, 2014; doi:10.1126/scitranslmed.3007811</p> <p>Contact: John E. Harris, University of Massachusetts Medical School, Worcester, Mass. e-mail: john.harris@umassmed.edu</p>