This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune; multiple sclerosis (MS)	CD3; CC chemokine receptor 6 (CCR6; CD196); chemokine CC motif ligand 20 (CCL20; MIP3A)	<p>Mouse studies suggest promoting T helper type 17 (Th17) cell migration into the gut could help treat MS and other autoimmune diseases. In mice, a CD3-specific antibody or a <i>Staphylococcus aureus</i> antigen induced CCR6- and CCL20-dependent accumulation of Th17 cells in the small intestines and promoted the generation of a newly identified class of immunosuppressive regulatory Th17 cells compared with antibody or antigen controls. In an MS mouse model, CD3 antibody-induced accumulation of Th17 cells in the small intestines or transfer of regulatory Th17 cells suppressed disease pathology, whereas saline did not. Next steps include identifying the mechanisms in the small intestines that convert proinflammatory Th17 cells into regulatory Th17 cells.</p> <p>SciBX 4(30); doi:10.1038/scibx.2011.845 Published online Aug. 4, 2011</p>	Unpatented; licensing status not applicable	<p>Esplugues, E. <i>et al. Nature</i>; published online July 17, 2011; doi:10.1038/nature10228</p> <p>Contact: Richard A. Flavell, Yale School of Medicine, New Haven, Conn. e-mail: richard.flavell@yale.edu</p> <p>Contact: Enric Esplugues, same affiliation as above e-mail: enric.esplugues@yale.edu</p>