This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune; multiple sclerosis (MS)	RAR-related orphan receptor C (RORC; RORγ; RORγT); IL-17 (IL-17A)	A study in cell culture and in mice identified antagonists of RORγT that could help treat autoimmune diseases. RORγT is a receptor required for T cell differentiation into T helper type 17 (Th17) cells, which produce proinflammatory IL-17. In a cell-based assay, the cardiac glycoside digoxin inhibited RORγT with an IC_{50} of 1.98 μM. In mouse $CD4^+$ T cells cultured under conditions that promote Th17 cell formation, digoxin led to lower production of Th17 cells and less IL-17 expression than vehicle control. In the experimental autoimmune encephalomyelitis (EAE) mouse model of MS, digoxin led to lower levels of IL-17-producing T cells in the spinal cord, delayed disease onset and decreased disease severity compared with vehicle control. Next steps include testing RORγT inhibitors in additional preclinical models of autoimmune diseases. At least five companies have therapeutics that block IL-17 signaling in stages from discovery to Phase II trials for various autoimmune diseases. *SciBX* 4(14); doi:10.1038/scibx.2011.390 Published online April 7, 2011	Patent application filed; available for licensing	Huh, J.R. *et al. Nature*; published online March 27, 2011; doi:10.1038/nature09978 **Contact:** Dan R. Littman, New York University School of Medicine, New York, N.Y. e-mail: Dan.Littman@med.nyu.edu