This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune	Mammalian target of rapamycin (mTOR; FRAP; RAFT1); transforming growth factor- β 1 (TGFB1; TGF β 1)	<p>A study in mice suggests that mTOR antagonists could help mitigate autoimmune diseases. Mice treated with a model antigen and the mTOR inhibitor Afinitor everolimus had increased numbers of immunosuppressive T_{reg} cells compared with controls receiving the antigen alone. Mice receiving Afinitor plus TGFβ1, which induces T_{reg} cell development, had longer-lived T_{reg} cells than mice receiving TGFβ1 alone. Next steps include optimizing treatment protocols and testing the combination strategy in mouse models of type 1 diabetes and other autoimmune indications.</p> <p>Afinitor everolimus is marketed by Novartis AG for renal cell carcinoma (RCC).</p> <p>At least eight other companies have mTOR inhibitors in development stages ranging from preclinical to marketed to treat cancer.</p> <p>SciBX 3(36); doi:10.1038/scibx.2010.1084 Published online Sept. 16, 2010</p>	Patent pending; not yet available for licensing	<p>Daniel, C. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 30, 2010; doi:10.1073/pnas.1007422107</p> <p>Contact: Harald von Boehmer, Dana-Farber Cancer Institute, Boston, Mass. e-mail: harald_von_boehmer@dfci.harvard.edu</p>