This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune	Toll-like receptor 7 (TLR7)	<p>Studies in mice suggest that TLR7 tolerance induced by repeated exposure to a TLR7 agonist could help decrease inflammation associated with autoimmune diseases. In a mouse model of experimental allergic encephalomyelitis, repeated low doses of the TLR7 agonist 9-benzyl-8-hydroxyl-2-(2-methoxyethoxy) adenine induced hyporesponsiveness to TLR2, TLR7 and TLR9 activators and decreased neural inflammation compared with what was seen using saline control. In a mouse model of arthritis, daily injection of a TLR7 agonist led to significantly less inflammatory cell infiltration and joint erosion than that seen using saline control ($p < 0.02$ for both). Next steps include determining the molecular pathways involved in TLR tolerance induction.</p> <p>ANA773, a prodrug of a TLR7 agonist from Anadys Pharmaceuticals Inc., is in Phase I testing to treat cancer and HCV.</p> <p><i>SciBX</i> 2(5); doi:10.1038/scibx.2009.171 Published online Feb. 5, 2009</p>	Patent and licensing status unknown	<p>Hayashi, T. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Jan. 26, 2009; doi:10.1073/pnas.0813037106 Contact: Maripat Corr, University of California, San Diego, La Jolla, Calif. e-mail: mpcorr@ucsd.edu</p>