This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	CD8; interferon- α (IFN- α); toll-like receptor 9 (TLR9)	A study in mice suggests that inducing type I interferons could help reverse tumor-specific T cell tolerance in cancer. In a mouse model of tumor-specific T cell tolerance, the TLR9 ligand CpG and a dendritic cell (DC) vaccine induced an IFN-α-mediated tumor-specific CD8⁺ T cell response and prolonged tumor-free survival compared with what was seen using either compound separately or a control vaccine. Antibodies against IFN-α significantly lowered the tumor-specific T cell response compared with what was seen using control antibodies ($p < 0.001$). Next steps include evaluating DC vaccines in combination with recombinant type I IFN or type I IFN-inducing agents in animal lymphoma models. Roche's Roferon-A IFN α-2a is marketed for multiple cancers and hepatitis. Peg-IFN peginterferon α-2b, a pegylated recombinant IFN-α-2b from Schering-Plough Corp. and Enzon Pharmaceuticals Inc., is under review to treat melanoma. At least five other companies have IFN-based compounds in Phase III or earlier to treat cancer. SciBX 2(14); doi:10.1038/scibx.2009.571 Published online April 9, 2009	Patent pending for treatment of lymphoma and leukemia in bone marrow transplant setting; licensing status undisclosed	Horkheimer, I. <i>et al. Blood</i>; published online March 11, 2009; doi:10.1182/blood-2008-05-155150 Contact: Yiping Yang, Duke University Medical Center, Durham, N.C. e-mail: yang0029@mc.duke.edu