This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Transplantation				
Graft-versus-host disease (GvHD)	Tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)	<p>TRAIL-overexpressing T cells could be useful for both treating GvHD and improving antitumor immunity following a hematopoietic stem cell transplant (HSCT). Mouse and human T cells were engineered to overexpress TRAIL, which is known to mediate graft-versus-tumor effects after HSCT. In mice receiving allogeneic HSCT and grafted with murine lymphoma cells, adoptive transfer of the TRAIL-overexpressing T cells resulted in 100% survival at 100 days, whereas mice receiving T cells without overexpression died from GvHD and lymphoma. In cell lines and samples from patients who have chronic lymphocytic leukemia (CLL), the human, TRAIL-overexpressing T cells showed more potent killing of both CLL and alloreactive T cells than did T cells with normal TRAIL expression. Next steps include developing a clinical trial to evaluate use of TRAIL-overexpressing T cells in patients whose disease has relapsed after an allogeneic HSCT.</p> <p>SciBX 6(22); doi:10.1038/scibx.2013.554 Published online June 6, 2013</p>	Unpatented; licensing status not applicable	<p>Ghosh, A. <i>et al. J. Clin. Invest.</i>; published online May 15, 2013; doi:10.1172/JCI66301 Contact: Arnab Ghosh, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: ghoshal@mskcc.org</p>