

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Transplantation				
Graft rejection	CD28; CD244 natural killer cell receptor 2B4 (CD244; 2B4)	<p>Mouse studies suggest selective CD28 blockade could help prevent transplant rejection. In mice with alloreactive skin grafts, a CD28-selective domain antibody (dAb), which lacked an Fc domain and only blocked the CD28⁺ T cell co-stimulatory pathway, extended graft survival better than Orenzia abatacept. Orenzia is a T cell co-stimulation blocker that inhibits both CD28 co-stimulatory and CTLA-4 (CD152) co-inhibitory signals. In the mice, the CD28-selective dAb decreased donor-reactive CD4⁺ and CD8⁺ T cell accumulation at the graft site compared with a control dAb and induced expression of the T cell co-inhibitory receptor 2B4 on CD8⁺ T cells. Next steps could include testing the antibody in additional transplant models and enhancing the co-inhibitory properties of 2B4.</p> <p>Bristol-Myers Squibb Co. and Ono Pharmaceutical Co. Ltd. market Orenzia to treat rheumatoid arthritis (RA).</p> <p>SciBX 7(11); doi:10.1038/scibx.2014.321 Published online March 20, 2014</p>	Patent and licensing status unavailable	<p>Liu, D. <i>et al. J. Exp. Med.</i>; published online Feb. 3, 2014; doi:10.1084/jem.20130902 Contact: Mandy L. Ford, Emory University, Atlanta, Ga. e-mail: mandy.ford@emory.edu</p>