This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	IL-2; IL-2 receptor α -chain (IL2-RA; CD25); IL-2 receptor β -chain (IL2-RB; CD122)	<i>Ex vivo</i> and mouse studies suggest an engineered IL-2 superkine, called super-2, could be used as an immunotherapy to help treat cancer. <i>In vitro</i> evolution was used to generate a mutant IL-2 that binds more strongly than the parent molecule to CD122. In human T cells, the superkine induced T cell proliferation regardless of T cell CD25 expression, whereas wild-type IL-2 induced proliferation of only CD25-expressing T cells. In four mouse tumor models, the superkine increased cytotoxic T cell expansion and decreased tumor growth and pulmonary edema compared with wild-type IL-2. Next steps include preclinical development.	Patent application filed; licensed to Teva Pharmaceutical Industries Ltd.	Levin, A.M. <i>et al. Nature</i> ; published online March 25, 2012; doi:10.1038/nature10975 Contact: K. Christopher Garcia, Stanford University School of Medicine, Stanford, Calif. e-mail: kcgarcia@stanford.edu Contact: Onur Boyman, University of Zurich, Zurich, Switzerland e-mail: onur.boyman@uzh.ch
<i>SciBX</i> 5(16); doi:10.1038/scibx.2012.412 Published online April 19, 2012				