This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Emphysema	CD80 (B7-1); cytotoxic T lymphocyte- associated protein 4 (CTLA4; CTLA-4; CD152)	<p>A study in cell culture suggests that antagonizing B7-1 on myeloid dendritic cells (DCs) could help treat inflammation associated with emphysema. Myeloid DCs isolated from the lungs of emphysema patients were more potent at stimulating proinflammatory T cells than myeloid DCs from non-emphysemic individuals. <i>In vitro</i>, blocking B7-1 on myeloid DCs using a fusion protein derived from the inhibitory B7-1 ligand CTLA-4 resulted in less activation of proinflammatory T cells than that in mock-treated controls. Next steps include testing CTLA-4 therapeutics in animal models of emphysema and developing diagnostics that detect autoimmune responses in emphysema.</p> <p>Orencia abatacept, a CTLA-4-Ig fusion protein from Bristol-Myers Squibb Co., is marketed to treat rheumatoid arthritis (RA) and is in Phase III testing for certain other forms of arthritis. Biogen Idec Inc.'s IDEC-114 galiximab, an anti-B7-1 mAb, is in Phase III testing for follicular non-Hodgkin's lymphoma (NHL).</p> <p>SciBX 2(45); doi:10.1038/scibx.2009.1677 Published online Nov. 19, 2009</p>	Patent pending for diagnostic procedures described in the study; licensing status undisclosed	<p>Shan, M. <i>et al. Sci. Transl. Med.</i>; published online Oct. 28, 2009; doi:10.1126/scitranslmed.3000154</p> <p>Contact: Farrah Kheradmand, Baylor College of Medicine, Houston, Texas e-mail: farrahk@bcm.edu</p> <p>Contact: David B. Corry, same affiliation as above e-mail: dcorry@bcm.edu</p>