This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Various				
Autoimmune disease; cachexia	Tumor necrosis factor- α (TNF- α)	Biochemical and cell culture studies identified a bicyclic peptide inhibitor of TNF- α that could help treat cachexia and autoimmune disease. TNF- α is upregulated in cachexia and multiple autoimmune diseases. A screen of a library of bicyclic peptides yielded a candidate that selectively bound TNF- α with a K_d value of 0.45 μ M. In an ELISA, the peptide inhibited the interaction between TNF- α and TNF receptor 1 (TNFRSF1A; TNFR1; CD120a). In cultured fibroblasts, the bicyclic peptide decreased TNF- α -induced cell death compared with monocyclic and linear peptides. Next steps include optimizing the potency and pharmacological properties of the inhibitor. <i>SciBX</i> 6(33); doi:10.1038/scibx.2013.902 Published online Aug. 29, 2013	Patent application filed; available for licensing	Lian, W. <i>et al.</i> <i>J. Am. Chem. Soc.</i> ; published online July 18, 2013; doi:10.1021/ja405106u Contact: Dehua Pei, The Ohio State University, Columbus, Ohio e-mail: pei.3@osu.edu