This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Tuberculosis	Prostaglandin E ₂ (PGE ₂)	<p><i>In vitro</i> and mouse studies suggest PGE₂ could help treat tuberculosis. In cultures of <i>Mycobacterium tuberculosis</i>-infected, IL-1 receptor-deficient macrophages, levels of Pge₂ were decreased and cells failed to control bacterial growth, whereas adding exogenous Pge₂ promoted bacterial clearance. In <i>IL-1 receptor</i>-deficient, <i>M. tuberculosis</i>-infected mice, Pge₂ alone or in combination with zileuton, a generic inhibitor of 5-lipoxygenase (ALOX5; 5-LO) that increases PGE₂ synthesis, decreased bacterial lung burden and necrotic lung pathology and increased survival compared with saline. Next steps include testing PGE₂ and zileuton in the clinic to treat tuberculosis.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.897 Published online Aug. 7, 2014</p>	Patent application filed; available for licensing	<p>Mayer-Barber, K.D. <i>et al. Nature</i>; published online June 25, 2014; doi:10.1038/nature13489</p> <p>Contact: Katrin D. Mayer-Barber, National Institute of Allergy and Infectious Diseases, Bethesda, Md. e-mail: mayerk@niaid.nih.gov</p>