This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Staphylococcus	Toll-like receptor 2 (TLR2)	<p><i>In vitro</i> and mouse studies suggest that TLR2 ligands expressed by Gram-positive bacteria could help treat toxic shock syndrome. Among human blood cells exposed to shock-inducing enterotoxin, cells simultaneously treated with heat-killed Gram-positive bacteria or peptidoglycan isolated from bacterial cell walls had lower levels of proinflammatory IL-2 than untreated cells. In the same cells, <i>TLR2</i> knockout abolished the decreases in IL-2. In a mouse model of toxic shock syndrome, a TLR2-targeting peptidoglycan increased survival compared with no treatment. Next steps could include identifying targets in the bacterial cell wall that modulate the immune response.</p> <p>Opsona Therapeutics Ltd.'s OPN-305, a mAb against TLR2, is in preclinical testing to treat ischemia and reperfusion injury.</p> <p>SciBX 2(22); doi:10.1038/scibx.2009.916 Published online June 4, 2009</p>	Findings unpatented; licensing status not applicable	<p>Chau, T. <i>et al. Nat. Med.</i>; published online May 19, 2009; doi:10.1038/nm.1965</p> <p>Contact: Joaquín Madrenas, Robarts Research Institute, London, Ontario, Canada e-mail: madrenas@robarts.ca</p>