This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Inflammation				
Inflammation; inflammatory disease	Nuclear receptor subfamily 1 group D member 1 (NR1D1; REV- ERBA α)	<p>Cell culture and mouse studies suggest agonizing the circadian regulator NR1D1 could help treat inflammatory diseases. In wild-type mice, injection of lipopolysaccharide (LPS) during waking hours induced higher IL-6 levels than injection of LPS during resting hours. In Nr1d1 knockout mice, LPS injection at any time made no difference in terms of induced IL-6 levels. In primary human macrophages exposed to LPS, the NR1D1 agonist GSK4112 decreased the expression of cytokines, including IL-6, compared with vehicle. Next steps include identifying small molecules with greater affinity for NR1D1 and improved pharmacokinetics. GSK4112 is a small molecule chemical probe from GlaxoSmithKline plc. GSK is assessing the potential of NR1D1 as a target for inflammatory disorders under a collaboration with The University of Manchester.</p> <p>SciBX 5(2); doi:10.1038/scibx.2012.49 Published online Jan. 12, 2012</p>	Patented; available for licensing	<p>Gibbs, J.E. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Dec. 19, 2011; doi:10.1073/pnas.1106750109 Contact: Andrew S.I. Loudon, The University of Manchester, Manchester, U.K. e-mail: andrew.loudon@manchester.ac.uk Contact: David W. Ray, same affiliation as above e-mail: david.w.ray@manchester.ac.uk</p>