This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Sepsis	Aryl hydrocarbon receptor (AHR); indoleamine 2,3-dioxygenase 1 (IDO1)	Mouse studies suggest stimulating IDO1 activity could help establish endotoxin tolerance in sepsis. In a mouse model of lipopolysaccharide (LPS)-induced sepsis, knocking out *Ido1*, which encodes an enzyme that produces Ahr ligands, prevented establishment of an endotoxin-tolerant state. In cultured mouse dendritic cells, genetic depletion of *Ahr* decreased *Ido1* expression and Ido1 phosphorylation compared with no alteration, suggesting a feed-forward mechanism from Ahr to Ido1 after initial LPS exposure. Next steps include developing strategies to sustain IDO1 activity and characterizing specific interactions between AHR and the AHR ligand kynurenine. *SciBX* 7(28); doi:10.1038/scibx.2014.830 Published online July 24, 2014	Patent application filed; available for licensing	Bessede, A. *et al. Nature*; published online July 9, 2014; doi:10.1038/nature13323 **Contact:** Paolo Puccetti, University of Perugia, Perugia, Italy e-mail: plopcc@tin.it **Contact:** Francesca Fallarino, same affiliation as above e-mail: fllfnc@tin.it