This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Mouse model of inflammasome-dependent rheumatoid arthritis (RA)	<p>A mouse model of RA with myeloid cell-specific deletion of <i>tumor necrosis factor-α-induced protein 3</i> (<i>Tnfaip3</i>; <i>A20</i>) could help identify new therapeutics. In RA, the NLR family pyrin domain containing 3 (NLRP3; NALP3; CIAS1) inflammasome activates caspase-1 (CASP1) to induce secretion of inflammatory IL-1β, but most models do not recapitulate this dependency on inflammasome activity. In mice, myeloid-specific deletion of <i>Tnfaip3</i> induced RA with increased Casp1 activation and IL-1β levels versus those seen in wild-type controls. In these mice, deletion of <i>Nlrp3</i> or <i>Casp1</i> protected against arthritis. Next steps include using the model to validate preclinical efficacy of inflammasome-targeting RA therapeutics.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.906 Published online Aug. 7, 2014</p>	Unpatented; available for licensing	<p>Walle, L.V. <i>et al. Nature</i>; published online June 29, 2014; doi:10.1038/nature13322</p> <p>Contact: Mohamed Lamkanfi, Flanders Institute for Biotechnology (VIB), Ghent, Belgium e-mail: mohamed.lamkanfi@vib-ugent.be</p>