This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Inflammation				
Inflammatory disease	Purinergic receptor P2X ligand-gated ion channel 7 (P2RX7; P2X7 receptor); sphingomyelin phosphodiesterase 1, acid lysosomal (SMPD1; acid sphingomyelinase)	<p>Studies in cell culture suggest that antagonizing P2RX7 or acid sphingomyelinase could help treat neuroinflammatory diseases. In astrocytes, P2RX7 activation led to downstream activation of acid sphingomyelinase and release of the inflammatory cytokine IL-1β. P2RX7-induced IL-1β release was blocked in mouse glial cells lacking acid sphingomyelinase. Next steps could include screening for P2RX7 receptor antagonists or acid sphingomyelinase inhibitors.</p> <p>AZD9056, a P2RX7 receptor antagonist from AstraZeneca plc, is in Phase II testing to treat rheumatoid arthritis (RA).</p> <p>SciBX 2(14); doi:10.1038/scibx.2009.587 Published online April 9, 2009</p>	Patent and licensing status unavailable	<p>Bianco, F. <i>et al. EMBO J.</i>; published online March 19, 2009; doi:10.1038/emboj.2009.45</p> <p>Contact: Claudia Verderio, CNR Institute of Neuroscience, Milan, Italy e-mail: c.verderio@in.cnr.it</p>