This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Rheumatoid arthritis (RA)	Bruton's tyrosine kinase (BTK); tumor necrosis factor- α (TNF- α)	<p>A study in mice identified CGI1746 as a BTK inhibitor that could help treat RA. In mice, CGI1746 (G-182) significantly decreased collagen-induced arthritis compared with dexamethasone or vehicle control ($p \leq 0.0002$). In mice with established arthritis, CGI1746 significantly decreased disease symptoms compared with vehicle ($p < 0.0001$) and had efficacy comparable to that of TNF-α blockade. Researchers did not disclose next steps, which could include medicinal chemistry optimization of CGI1746 and testing the compound in preclinical models of other autoimmune diseases. Gilead Sciences Inc. and Roche did not disclose the developmental status of CGI1746.</p> <p>AVL-292, a covalent small molecule BTK inhibitor from Avila Therapeutics Inc., is in Phase I testing to treat RA and cancer.</p> <p>PCI-32765, a BTK inhibitor from Pharmacyclics Inc., is in preclinical development for autoimmune diseases.</p> <p>SciBX 3(48); doi:10.1038/scibx.2010.1438 Published online Dec. 16, 2010</p>	BTK inhibitors patented; licensing status undisclosed	<p>Di Paolo, J.A. <i>et al. Nat. Chem. Biol.</i>; published online Nov. 28, 2010; doi:10.1038/nchembio.481</p> <p>Contact: Kevin S. Currie, CGI Pharmaceuticals Inc., Branford, Conn. e-mail: kevin.currie@gilead.com</p> <p>Contact: Karin Reif, Genentech Inc., South San Francisco, Calif. e-mail: kreif@gene.com</p>