This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Atherosclerosis	Mitogen-activated protein kinase 14 (MAPK14; p38); protein kinase B (PKB; Akt)	<p>Mouse studies suggest that anti-inflammatory p38 inhibitors may have the unintended consequence of accelerating atherosclerosis progression. Mouse models of atherosclerosis with p38-deficient macrophages had greater plaque necrosis than controls that had wild-type macrophages. The plaques in the p38-deficient mice showed signs of advanced disease such as less collagen content and thinning of the plaque's fibrous cap. In cultured mouse macrophages, p38 inhibition or deficiency suppressed activation of the prosurvival Akt pathway, triggering macrophage apoptosis. Next steps include assessing the impact of the findings on p38 inhibitors in development and elucidating the potential macrophage-protective effects of p38 in infectious and inflammatory diseases.</p> <p>BMS-582949, a p38 inhibitor from partners Bristol-Myers Squibb Co. and Ligand Pharmaceuticals Inc., is in Phase II testing to treat atherosclerosis. GlaxoSmithKline plc's p38 inhibitor losmapimod is in Phase II testing to treat cardiovascular disease, chronic obstructive pulmonary disease (COPD) and depression.</p> <p>At least five other companies have p38 inhibitors in early-stage clinical testing to treat cancer, autoimmune diseases and inflammatory diseases.</p> <p>SciBX 2(12); doi:10.1038/scibx.2009.490 Published online March 26, 2009</p>	Unpatented; unlicensed	<p>Seimon, T. <i>et al. J. Clin. Invest.</i>; published online March 16, 2009; doi:10.1172/JCI37262</p> <p>Contact: Tracie Seimon, Columbia University, New York, N.Y. e-mail: tad2105@columbia.edu</p>