

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Marfan syndrome	MAP kinase 3 (MAPK3; ERK-1); MAPK1 (ERK-2); MAP kinase kinase 1 (MAP2K1; MEK1); MAP2K2 (MEK2); c-jun N-terminal kinase 1 (JNK1; MAPK8)	<p>Studies in mice suggest that inhibiting the MAP kinase pathway could help treat aortic aneurysm associated with Marfan syndrome. In a mouse model of Marfan syndrome, the small molecule MEK1 and MEK2 inhibitor BAY 86-9766 decreased aberrant aortic root growth compared with vehicle. In the same model, an inhibitor of the ERK-1 and ERK-2 target protein JNK1 reduced aberrant aortic root growth and increased survival compared with vehicle. Next steps include identifying and optimizing MAP kinase pathway inhibitors for aneurysm.</p> <p>BAY 86-9766, from Ardea Biosciences Inc. and Bayer AG, is in Phase II testing for cancer. At least nine other companies have MAP kinase pathway inhibitors in various stages of development for cancer.</p> <p>Merck KGaA's bentamapimod JNK1 inhibitor is in Phase I testing for endometriosis.</p> <p>SciBX 4(17); doi:10.1038/scibx.2011.483 Published online April 28, 2011</p>	Patent application filed; available for licensing	<p>Holm, T.M. <i>et al. Science</i>; published online April 15, 2011; doi:10.1126/science.1192149</p> <p>Contact: Harry C. Dietz, The Johns Hopkins University School of Medicine, Baltimore, Md. e-mail: hdietz@jhmi.edu</p>