This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Various				
Diabetes; liver failure	c-Jun N-terminal kinase (JNK)	<p><i>In vitro</i> and mouse studies suggest compounds blocking both the ATP- and substrate-binding sites of JNK could help treat diabetes and liver failure. Fragment-based drug design and synthesis plus <i>in vitro</i> testing identified a lead bidentate compound as a low nanomolar inhibitor of JNK. In a mouse model of type 2 diabetes, the compound improved glucose tolerance compared with a peptide that inhibited only JNK's substrate-binding site. In a mouse model of liver failure, the compound decreased liver damage compared with vehicle. Future studies could include testing the compound in animal models of neurodegenerative diseases and radiation damage.</p> <p>XG-102 (AM-111; D-JNKI-1), a D-peptide inhibitor of JNK from Xigen S.A. and Auris Medical AG, is in Phase II testing to treat hearing loss. Xigen also has the compound in Phase I testing to treat stroke.</p> <p>CC-930 (JNK 930; JNK CC-930), a JNK inhibitor from Celgene Corp., is in Phase II testing to treat lupus and pulmonary fibrosis.</p> <p>Bentamapimod, a JNK1 (MAPK8) inhibitor from Merck KGaA and PregLem S.A., is in Phase I testing to treat endometriosis.</p> <p>SciBX 4(32); doi:10.1038/scibx.2011.916 Published online Aug. 18, 2011</p>	Patented by the Sanford-Burnham Medical Research Institute; available for licensing	<p>Stebbins, J.L. <i>et al. J. Med. Chem.</i>; published online Aug. 4, 2011; doi:10.1021/jm200479c</p> <p>Contact: Maurizio Pellecchia, Sanford-Burnham Medical Research Institute, La Jolla, Calif. e-mail: mpellecchia@sanfordburnham.org</p>