This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Hepatic disease				
Liver disease	Cytochrome P450 family 2 subfamily E polypeptide 1 (CYP2E1)	Mouse studies suggest the plant-derived natural compound demethyleneberberine could help treat alcoholic liver disease. In a human hepatocyte cell line, demethyleneberberine exhibited mitochondria-targeted antioxidant activity that protected against ethanol-induced damage. In mouse models of acute and chronic alcoholic liver injury, demethyleneberberine decreased markers of ethanol-induced liver damage, including mitochondrial oxidative stress and hepatosteatosis, compared with no treatment. In liver samples from the chronic alcoholic liver injury mouse model, demethyleneberberine downregulated Cyp2e1 and other proteins that drive oxidative stress and upregulated activity in pathways that protect against hepatosteatosis. Next steps include conducting additional pharmacokinetic, toxicology and pharmacology studies on demethyleneberberine. SciBX 7(47); doi:10.1038/scibx.2014.1378 Published online Dec. 11, 2014	Patent and licensing status undisclosed	Zhang, P. <i>et al. J. Pharmacol. Exp. Ther.</i>; published online Oct. 31, 2014; doi:10.1124/jpet.114.219832 Contact: Yubin Zhang, China Pharmaceutical University, Nanjing, China e-mail: ybzhang@cpu.edu.cn