This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Depression	NADPH oxidase; neutrophil cytosolic factor 1 (NCF1; p47phox)	<p><i>In vitro</i> and mouse studies suggest inhibiting NADPH oxidase or its NCF1 subunit could help treat depression. In human and mouse neuronal cell lines, the stress hormone glucocorticoid increased NCF1 levels compared with an inactive control compound. In mouse models of restraint-induced stress, depressive behaviors were greater and cortical and hippocampal levels of Ncf1 were higher than those in unrestrained controls. In these models, <i>Ncf1</i> deficiency or an NADPH oxidase inhibitor decreased depressive behaviors compared with normal <i>Ncf1</i> expression or an inactive control compound. Next steps could include studying the role of <i>Ncf1</i> in other animal models of depression.</p> <p>GKT137831, a dual NADPH oxidase 1 (NOX1) and NOX4 inhibitor from Genkyotex S.A., is in Phase I testing to treat diabetic nephropathy and preclinical testing to treat pulmonary fibrosis.</p> <p>SciBX 5(29); doi:10.1038/scibx.2012.762 Published online July 26, 2012</p>	Patent and licensing status unavailable	<p>Seo, J.-S. <i>et al. J. Neurosci.</i>; published online July 11, 2012; doi:10.1523/JNEUROSCI.0794-12.2012 Contact: Pyung-Lim Han, Ewha Womans University, Seoul, South Korea e-mail: plhan@ewha.ac.kr</p>