

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Amyotrophic lateral sclerosis (ALS)	Superoxide dismutase 1 (SOD1)	<p>Mouse studies suggest increasing the copper content of the SOD1 metalloprotein could be useful for treating ALS. In a mutant SOD1 mouse model of ALS, daily oral treatment with diacetyl-<i>bis</i> (4-methylthiosemicarbazonato) copper(II) (Cu(II)(at-sm)) improved locomotor function and increased survival compared with vehicle. In spinal cords from these mice, Cu(II)(at-sm) increased the copper content of mutant SOD1 compared with vehicle, suggesting that copper deficiency could underlie the protein's neurotoxicity. Next steps could include developing a screen for compounds that increase SOD1 copper content.</p> <p>At least four companies have compounds that target SOD1 in preclinical development to treat ALS.</p> <p>Procypra Therapeutics LLC has derivatives of Cu(II)(at-sm) in discovery to treat Parkinson's disease (PD).</p> <p>SciBX 7(27); doi:10.1038/scibx.2014.799 Published online July 17, 2014</p>	Patent and licensing status unavailable	<p>Roberts, B.R. <i>et al. J. Neurosci.</i>; published online June 4, 2014; doi:10.1523/JNEUROSCI.4196-13.2014</p> <p>Contact: Peter J. Crouch, The University of Melbourne, Melbourne, Victoria, Australia e-mail: pjcrouch@unimelb.edu.au</p>