

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Parkinson's disease (PD)	Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 2 (SLC11A2; DMT1)	<p>A study in human tissue, mice and rats suggests that DMT1 could be targeted to treat PD. DMT1 transports ferric iron (Fe²⁺) and other metal ions into the dopaminergic neurons of the substantia nigra. High levels of iron are thought to contribute to neuronal cell death in PD by inducing downstream production of free radicals. In postmortem PD patients, dopaminergic neurons showed higher levels of iron and an iron-specific form of DMT1 compared with what was seen in healthy controls. Mice and rats with a mutant <i>Dmt1</i> gene, which impaired iron transport, were less susceptible to compounds that induce a PD-like disorder than were wild-type controls. Next steps include developing blood-brain barrier-permeable inhibitors of DMT1 and testing their efficacy in rodent models of PD.</p> <p>SciBX 1(42); doi:10.1038/scibx.2008.1025 Published online Nov. 20, 2008</p>	Unpatented; licensing status not applicable	<p>Salazar, J. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 14, 2008; doi:10.1073/pnas.0804373105 Contact: Etienne C. Hirsch, Institut National de la Santé et de la Recherche Médicale (INSERM), Paris, France e-mail: hirsch@ccr.jussieu.fr</p>