

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Pain	Nav1.9 (SCN11A)	<p>Gene sequencing, cell culture and mouse studies suggest antagonizing Nav1.9 could help treat congenital analgesia. Sequencing of patients identified a missense gain-of-function mutation in <i>SCN11A</i>, which encodes the voltage-gated sodium ion channel Nav1.9. In a dorsal root ganglion neuronal cell line, expression of mutant Nav1.9 decreased the depolarization required to activate or inactivate voltage-dependent sodium currents compared with wild-type Nav1.9 expression. In heterozygous knock-in mice expressing the mutant <i>Scn11a</i> allele, thermal and mechanical stimuli produced fewer pain responses and less protective activity than what was seen in mice expressing wild-type <i>Scn11a</i>. Next steps include testing Nav1.9 inhibitors in congenital analgesia and testing whether compounds mimicking mutant channel behavior could help suppress pain.</p> <p>SciBX 6(41); doi:10.1038/scibx.2013.1166 Published online Oct. 24, 2013</p>	Patent application filed; available for licensing	<p>Leipold, E. <i>et al. Nat. Genet.</i>; published online Sept. 15, 2013; doi:10.1038/ng.2767 Contact: Ingo Kurth, Institute of Human Genetics, Jena University Hospital, Jena, Germany e-mail: ingo.kurth@med.uni-jena.de</p>