This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Spinal cord injury (SCI)	Transient receptor potential cation channel, subfamily M, member 4 (TRPM4)	<p><i>In vitro</i> and rodent studies suggest that blocking TRPM4 could potentially prevent hemorrhage associated with SCI. In a rat model of SCI, Trpm4 levels were higher in tissues surrounding the injury than those seen in uninjured controls. In cell lines, overexpression of Trpm4 caused oncotic swelling and cell death after ATP depletion, a condition associated with SCI. In the SCI rat model, Trpm4 antisense treatment decreased <i>Trmp4</i> mRNA expression, decreased secondary hemorrhage incidence, lowered lesion volume and improved neurobehavioral performance compared with what was seen in untreated rats. The findings were further confirmed with genetic knockout of <i>Trpm4</i> in mice. Next steps include determining the effects of this particular antisense in humans. Isis Pharmaceuticals Inc. and AVI BioPharma Inc. have antisense compounds in preclinical and Phase I testing, respectively, for neurological conditions.</p> <p>SciBX 2(4); doi:10.1038/scibx.2009.156 Published online Jan. 29, 2009</p>	Patent application filed; technology licensed by Remedy Pharmaceuticals Inc.; unavailable for licensing	<p>Gerzanich, V. <i>et al. Nat. Med.</i>; published online Jan. 25, 2009; doi:10.1038/nm.1899</p> <p>Contact: J. Marc Simard, University of Maryland School of Medicine, Baltimore, Md. e-mail: msimard@smail.umaryland.edu</p>