This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Multiple sclerosis (MS)	Endothelin 1 (EDN1; ET1); endothelin receptor	<p><i>In vitro</i> and mouse studies suggest antagonizing ET1 or endothelin receptor could help promote remyelination in MS. In an <i>in vitro</i> model of demyelination, ET1 decreased differentiation of myelination-promoting oligodendrocytes compared with saline. In a mouse model of demyelination, genetic depletion of <i>Et1</i> in astrocytes increased the number of mature oligodendrocytes in lesions compared with normal <i>Et1</i> expression. In the mice, pharmacological inhibition of endothelin receptor decreased notch signaling in oligodendrocytes and increased the number of mature oligodendrocytes and levels of myelin compared with saline treatment. Next steps could include testing whether endothelin receptor antagonists can improve recovery and repair of the CNS in additional indications and understanding the relationship between ET1 and notch signaling.</p> <p>At least six endothelin receptor antagonists are marketed to treat pulmonary arterial hypertension (PAH) and various additional indications.</p> <p>SciBX 7(8); doi:10.1038/scibx.2014.219 Published online Feb. 27, 2014</p>	Patent and licensing status unavailable	<p>Hammond, T.R. <i>et al. Neuron</i>; published online Feb. 5, 2014; doi:10.1016/j.neuron.2013.11.015</p> <p>Contact: Vittorio Gallo, Children's National Medical Center, Washington, D.C. e-mail: vgallo@cnmcresearch.org</p>