This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Multiple sclerosis (MS)	UDP-Gal:βGlcNAc β-1,4-galactosyltransferase polypeptide 6 (B4GALT6); lactosylceramide	<p>Studies in patient samples and mice suggest inhibiting B4GALT6 could help treat MS. In brain samples from patients with MS, levels of B4GALT6 and its biosynthetic product lactosylceramide were higher in MS lesions than in normal-appearing white matter. In a mouse model of experimental autoimmune encephalitis (EAE), lactosylceramide increased astrocyte-mediated neurodegeneration and consequent disease severity compared with vehicle. In the mouse EAE model, chemical inhibition of B4GALT6 decreased lactosylceramide levels in the CNS and disease severity compared with no treatment. Next steps include elucidating the role of B4GALT6 and lactosylceramide in MS and identifying small molecules that could be used for modulating the pathway.</p> <p><i>SciBX</i> 7(39); doi:10.1038/scibx.2014.1143 Published online Oct. 9, 2014</p>	Patent application filed covering use in an undisclosed indication; exclusively optioned to an undisclosed party	<p>Mayo, L. <i>et al. Nat. Med.</i>; published online Sept. 14, 2014; doi:10.1038/nm.3681</p> <p>Contact: Francisco J. Quintana, Harvard Medical School, Boston, Mass. e-mail: fquintana@rics.bwh.harvard.edu</p>