

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Multiple sclerosis (MS)	G protein-coupled receptor 109A (GPR109A; HM74A; HCAR2)	<p>Mouse studies suggest GPR109A activation is the mechanism of action for Tecfidera dimethyl fumarate and that activating GPR109A could help treat MS. In an experimental autoimmune encephalomyelitis (EAE) mouse model of MS, Tecfidera delayed CNS neutrophil infiltration and disease onset in <i>Gpr109a</i>⁺ mice but not in <i>Gpr109a</i> knockouts. Next steps include testing GPR109A agonists in mouse models of MS. Biogen Idec Inc. markets Tecfidera, an oral formulation of dimethyl fumarate that activates the nuclear factor (erythroid-derived 2)-like 2 (NFE2L2; NRF2) pathway, to treat MS.</p> <p>SciBX 7(24); doi:10.1038/scibx.2014.695 Published online June 19, 2014</p>	Unpatented; available for licensing	<p>Chen, H. <i>et al. J. Clin. Invest.</i>; published online May 1, 2014; doi:10.1172/JCI72151</p> <p>Contact: Markus Schwaninger, University of Luebeck, Luebeck, Germany e-mail: markus.schwaninger@pharma.uni-luebeck.de</p>