

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune disease	Integrin α_3	<p><i>In vitro</i> and mouse studies suggest inhibiting integrin α_3 could help treat autoimmune diseases. In mice treated with an adjuvant that expands lymph nodes, an anti-integrin α_3 antibody increased draining lymph node size and CD4⁺ T cell and CD19⁺ B cell numbers and decreased lymphocyte egress from the lymph nodes compared with IgG control. In a mouse experimental autoimmune encephalomyelitis (EAE) model, prophylactic injection of the anti-integrin α_3 antibody decreased symptom severity, immune cell infiltration into the spinal cord and demyelination compared with IgG control injection. Next steps could include testing whether the antibody blocks integrin α_3-induced secretion of sphingosine 1-phosphate (S1P) from lymphatic endothelial cells <i>in vitro</i> and <i>in vivo</i>.</p> <p>SciBX 7(9); doi:10.1038/scibx.2014.247 Published online March 6, 2014</p>	Patent application filed; licensing status undisclosed	<p>Ito, K. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Feb. 10, 2014; doi:10.1073/pnas.1311022111</p> <p>Contact: Toshimitsu Uede, Hokkaido University, Sapporo, Japan e-mail: uedetoshimitsu@icloud.com Contact: Koyu Ito, same affiliation as above e-mail: ito@igm.hokudai.ac.jp</p>