This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Obesity	Notch 1 (NOTCH1); γ -secretase	<p>Mouse studies suggest inhibiting NOTCH1 or γ-secretase could help treat obesity. In mice, adipose-specific knockout of <i>Notch1</i> increased the number of thermogenic beige adipocytes and decreased the number of white adipocytes compared with no alteration. Adipose-specific <i>Notch1</i> knockout mice showed improved glucose tolerance and increased resistance to high-fat diet-induced obesity compared with wild-type controls. In a mouse model of obesity, a γ-secretase inhibitor that also blocks Notch signaling improved glucose tolerance and decreased weight gain compared with vehicle. Next steps include determining whether NOTCH1 signaling is involved in the formation of beige adipose tissue in humans and testing the effects of new γ-secretase or NOTCH1 inhibitors in mouse models of obesity.</p> <p>SciBX 7(31); doi:10.1038/scibx.2014.924 Published online Aug. 14, 2014</p>	<p>Patent application filed covering NOTCH1 inhibitors to promote conversion of white fat to beige fat; available for licensing from the Purdue Research Foundation</p>	<p>Bi, P. <i>et al. Nat. Med.</i>; published online July 20, 2014; doi:10.1038/nm.3615 Contact: Shihuan Kuang, Purdue University, West Lafayette, Ind. e-mail: skuang@purdue.edu</p>