This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Metabolic disease				
Obesity	Component 3a receptor 1 (C3AR1); transforming growth factor- β receptor II (TGFB2); growth arrest-specific gene 7 (GAS7); glutathione peroxidase 3, plasma (GPX3); zinc finger protein 90 homolog (ZFP90); malic enzyme 1, cytosolic (ME1); β -lactamase (LACTB); lipoprotein lipase (LPL)	<p>A study in mice suggests that eight proteins identified through integrative genomic analysis could be targeted to treat obesity. Mice lacking or overexpressing any one of these eight genes—<i>C3ar1</i>, <i>Tgfb2</i>, <i>Gas7</i>, <i>Gpx3</i>, <i>Zfp90</i>, <i>Me1</i>, <i>Lactb</i> or <i>Lpl</i>—had higher or lower adiposity and/or body weight than wild-type controls. The effects of loss- and gain-of-function mutations in these eight genes were influenced by the gender of the animal. Mutations in two genes, <i>C3ar1</i> and <i>Tgfb2</i>, had opposite effects on fat metabolism in male mice compared with those seen in female mice. Next steps include combining mutations to understand obesity-related metabolic pathways and selecting candidate proteins as drug targets.</p> <p>Merck & Co. Inc. is testing compounds against undisclosed targets related to this work in obesity.</p> <p>SciBX 2(14); doi:10.1038/scibx.2009.588 Published online April 9, 2009</p>	<p>Patents on methods filed by Merck; company plans to make methods and data available to Sage, a not-for-profit company spun out of Merck's Rosetta Inpharmatics Inc. subsidiary</p>	<p>Yang, X. <i>et al. Nat. Genet.</i>; published online March 8, 2009; doi:10.1038/ng.325</p> <p>Contact: Thomas A. Drake, University of California, Los Angeles, Calif. e-mail: tldrake@mednet.ucla.edu</p>