This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Post-traumatic stress disorder (PTSD)	Histone deacetylase 2 (HDAC2)	<p>Mouse studies suggest HDAC2 inhibitors could help treat PTSD associated with long-term traumatic memories. In mice receiving a fear-extinction treatment protocol 1 day after fear conditioning, compared with mouse models receiving the protocol after 30 days, conditioned fear responses decreased and Hdac2-chromatin dissociation in hippocampal neurons increased. In mice receiving the protocol 30 days after conditioning, a class I HDAC inhibitor decreased conditioned fear responses and increased synaptic and structural plasticity of hippocampal neurons compared with vehicle. Future studies could include developing and testing HDAC2-specific inhibitors in the mouse models.</p> <p>Acetylon Pharmaceuticals Inc. has ACY-738, a selective inhibitor of HDAC1 and HDAC2, in preclinical testing to treat neurological indications.</p> <p>Acetylon also has a selective HDAC1 and HDAC2 inhibitor in preclinical testing to treat sickle cell disease and thalassemia.</p> <p>SciBX 7(4); doi:10.1038/scibx.2014.122 Published online Jan. 30, 2014</p>	Patent and licensing status unavailable	<p>Gräff, J. <i>et al. Cell</i>; published online Jan. 16, 2014; doi:10.1016/j.cell.2013.12.020 Contact: Li-Huei Tsai, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: lh-tsai@mit.edu</p>