This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Cognitive dysfunction	Histone deacetylase 1 (HDAC1); HDAC2	<p>A study in mice suggests that inhibiting HDAC2 could be useful for treating memory impairment. Mice overexpressing Hdac2 showed less freezing behavior in fear-learning tests than wild-type controls, suggesting impaired memory formation. Hdac2-deficient mice had more freezing behavior in the tests than wild-type controls. In both wild-type mice and those overexpressing Hdac2, the HDAC inhibitor vorinostat significantly increased freezing behavior compared with saline-treated controls ($p < 0.005$). Next steps include developing selective small molecule inhibitors of HDAC2 and an HDAC2 loss-of-function mouse model.</p> <p>Zolinza vorinostat from Merck & Co. Inc. is marketed to treat cutaneous T cell lymphoma (CTCL).</p> <p>Belinostat, a small molecule HDAC inhibitor from TopoTarget A/S, is in Phase III testing to treat T cell lymphoma.</p> <p>At least three other companies have HDAC inhibitors in Phase II or earlier development for various neurological disorders.</p> <p>SciBX 2(20); doi:10.1038/scibx.2009.839 Published online May 21, 2009</p>	Patent application filed for neurological disorders; available for licensing from the Technology Licensing Office at the Massachusetts Institute of Technology	<p>Guan, J.-S. <i>et al. Nature</i>; published online May 6, 2009; doi:10.1038/nature07925</p> <p>Contact: Li-Huei Tsai, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: lhtsai@mit.edu</p>