This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Histone deacetylase 6 (HDAC6)	<p><i>In vitro</i>, cell culture and mouse studies have identified an HDAC6 inhibitor that could help treat cancer. <i>In vitro</i>, a hydroxamic acid-based small molecule inhibited HDAC6 with an IC₅₀ of about 50 nM and had selectivity over other HDACs, including about 50-fold selectivity over HDAC1. In human cancer cell lines, the inhibitor decreased cell growth compared with no treatment but did not affect viability. In human cancer cells and in a mouse xenograft model of prostate cancer, the inhibitor plus the chemotherapeutics doxorubicin or etoposide increased cell death and decreased tumor growth compared with chemotherapy alone. Next steps could include testing the molecule in additional tumor models.</p> <p>Celgene Corp. and Acetylon Pharmaceuticals Inc. have ACY-1215, an HDAC6 inhibitor, in Phase I/II testing to treat multiple myeloma (MM). Karus Therapeutics Ltd. and IkerChem S.L. have HDAC6 inhibitors in preclinical development to treat cancer and inflammation.</p> <p>SciBX 6(38); doi:10.1038/scibx.2013.1059 Published online Oct. 3, 2013</p>	Patent and licensing status unavailable	<p>Lee, J.-H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Sept. 10, 2013; doi:10.1073/pnas.1313893110</p> <p>Contact: Paul A. Marks, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: marksp@mskcc.org</p> <p>Contact: Ronald Breslow, Columbia University, New York, N.Y. e-mail: rb33@columbia.edu</p>