This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Checkpoint kinase 1 (Chk1)	Mouse and cell culture studies suggest Chk1 inhibitors should not be combined with histone deacetylase (HDAC) inhibitors to treat cancer. Earlier studies have suggested inhibiting Chk1 could increase HDAC inhibitor efficacy in cancer. In cell culture, a Chk1 inhibitor plus the broad-spectrum HDAC inhibitor Zolinza vorinostat caused abnormal mitosis and apoptosis in both normal and transformed cell lines, whereas either compound alone killed transformed cells but not normal cells. In mice, combined treatment with Chk1 and HDAC inhibitors caused weight loss and abnormal chromosome morphology compared with either agent alone. Next steps include identifying compounds that synergize with HDAC inhibitors. Partners Merck & Co. Inc. and Otsuka Pharmaceutical Co. Ltd. market Zolinza to treat cutaneous T cell lymphoma (CTCL). Celgene Corp.'s Istodax romidepsin is an HDAC inhibitor marketed for CTCL and lymphoma. At least 20 more companies have HDAC inhibitors in development for cancer. At least six companies have Chk1 inhibitors in various stages of development for cancer. SciBX 5(1); doi:10.1038/scibx.2012.10 Published online Jan. 5, 2012	Unpatented; licensing status not applicable	Lee, J.-H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 21, 2011; doi:10.1073/pnas.1117544108 Contact: Paul A. Marks, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: marksp@mskcc.org