This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Melanoma	BRAF; MEK; microphthalmia-associated transcription factor (MITF); histone deacetylase (HDAC)	<p>Cell culture and mouse studies suggest combining MEK and HDAC inhibitors could help treat BRAF-mutant melanoma. An overexpression screen of 15,906 open reading frames in a BRAF-mutant melanoma cell line identified resistance mechanisms to small molecule BRAF, MEK or MAPK inhibitors. Hits from the screen, which included the melanocyte developmental regulator MITF, suggested MAPK and cAMP signaling could mediate resistance to these compounds. In a drug-resistant melanoma cell line, an HDAC inhibitor plus a BRAF or MEK inhibitor decreased MITF expression and cell viability compared with a BRAF or MEK inhibitor alone. Next steps could include animal studies of the combination strategy.</p> <p>SciBX 6(48); doi:10.1038/scibx.2013.1385 Published online Dec. 19, 2013</p>	Patent and licensing status unavailable	<p>Johannessen, C.M. <i>et al. Nature</i>; published online Nov. 3, 2013; doi:10.1038/nature12688</p> <p>Contact: Levi A. Garraway, Broad Institute of MIT and Harvard, Cambridge, Mass. e-mail: levi_garraway@dfci.harvard.edu</p>