This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Inhibitor of κ -light polypeptide gene enhancer in B cells kinase- ϵ (IKBKE; IKK ϵ); Janus kinase (JAK)	<p><i>In vitro</i> and mouse studies suggest inhibiting IKBKE could help treat a subset of triple-negative breast cancers (TNBCs). In a panel of IKBKE-overexpressing TNBC cell lines, the JAK and IKBKE inhibitor momelotinib decreased cell viability compared with the JAK inhibitor ruxolitinib or vehicle. In mice bearing TNBC xenograft tumors, momelotinib decreased tumor growth compared with vehicle, and momelotinib plus the MEK inhibitor Mekinist decreased tumor growth compared with either agent alone. Next steps include testing the combination of momelotinib and Mekinist in patients with TNBC.</p> <p>Gilead Sciences Inc. has momelotinib (CYT387), an inhibitor of JAK-1 and JAK-2, in Phase III testing to treat myeloproliferative disorder and Phase II trials to treat pancreatic cancer.</p> <p>Japan Tobacco Inc. and GlaxoSmithKline plc market Mekinist trametinib to treat melanoma.</p> <p>Incyte Corp. and Novartis AG market Jakavi/Jakafi ruxolitinib, an inhibitor of JAK-1 and JAK-2, to treat myeloproliferative disorder and have the compound in Phase II to Phase III testing to treat a range of cancers.</p> <p>SciBX 7(46); doi:10.1038/scibx.2014.1343 Published online Dec. 4, 2014</p>	Findings unpatented; licensing status not applicable	<p>Barbie, T.U. <i>et al. J. Clin. Invest.</i>; published online Nov. 3, 2014; doi:10.1172/JCI75661</p> <p>Contact: William E. Gillanders, Washington University in St. Louis, St. Louis, Mo. e-mail: gillandersw@wudosis.wustl.edu</p> <p>Contact: David A. Barbie, Broad Institute of MIT and Harvard, Cambridge, Mass. e-mail: dbarbie@partners.org</p> <p>Contact: William C. Hahn, same affiliation as above e-mail: william_hahn@dfci.harvard.edu</p>