This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Brain cancer	BRAF; KIAA1549	<p>Cell culture studies suggest second-generation BRAF inhibitors could help treat cancers that harbor the KIAA1549-BRAF fusion protein, which is found in low-grade astrocytomas. In cell lines engineered to express KIAA1549-BRAF, the second-generation BRAF inhibitor PLX PB-3 showed more potent inhibition of the kinase's signaling than the first-generation BRAF inhibitor Zelboraf vemurafenib. In cell lines that expressed KIAA1549-BRAF, PLX PB-3 decreased anchorage-independent growth and cell proliferation rates compared with no treatment. Next steps include developing additional targeting approaches against tumors that are dependent on mutant BRAF and BRAF fusion proteins.</p> <p>Daiichi Sankyo Co. Ltd., Chugai Pharmaceutical Co. Ltd. and Roche market Zelboraf, an oral small molecule inhibitor of oncogenic BRAF V600E, to treat melanoma. The drug is in Phase II testing for thyroid cancer.</p> <p>Daiichi has second-generation BRAF inhibitors in preclinical development.</p> <p>Research-grade vemurafenib and PLX PB-3 were provided by the Plexxikon Inc. unit of Daiichi.</p> <p>SciBX 6(13); doi:10.1038/scibx.2013.307 Published online April 4, 2013</p>	Unpatented; licensing status not applicable	<p>Sievert, A.J. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online March 25, 2013; doi:10.1073/pnas.1219232110</p> <p>Contact: Adam C. Resnick, The Children's Hospital of Philadelphia, Philadelphia, Pa. e-mail: resnick@email.chop.edu</p>