This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Src; epidermal growth factor receptor 1 (EGFR1; HER1; ErbB1); HER2 (EGFR2; ErbB2; neu)	<p>Human tumor and mouse studies suggest Src inhibitors could help treat brain metastases from breast cancer. In patients who have <i>HER2</i>⁺, metastatic breast cancer and mouse models of <i>HER2</i>⁺ or triple-negative breast cancer, Src expression and activation levels were higher in brain metastases than those in the primary tumors. In mice xenograft models with <i>HER2</i>⁺ or triple-negative brain metastases, Tykerb lapatinib plus a Src inhibitor decreased tumor growth and increased survival compared with either agent alone. Ongoing work includes confirming the findings in the mouse models using the Src inhibitor Sprycel dasatinib. GlaxoSmithKline plc markets Tykerb, a HER1 and HER2 kinase inhibitor, to treat breast cancer. Bristol-Myers Squibb Co. and Otsuka Pharmaceutical Co. Ltd. market Sprycel, a small molecule inhibitor of BCR-ABL tyrosine kinase and Src, to treat acute lymphoblastic leukemia (ALL) and chronic myelogenous leukemia (CML). The partners also have the drug in Phase II testing to treat breast and pancreatic cancers and Phase I testing to treat leukemia. Pfizer Inc's Bosulif bosutinib, a dual inhibitor of BCR-ABL and Src, is marketed to treat CML and in Phase II testing to treat polycystic kidney disease (PKD). Kinex Pharmaceuticals LLC and Hanmi Pharmaceutical Co. Ltd. have KX01 (KX2-391), a selective, small molecule, non-ATP Src inhibitor, in Phase II testing or earlier to treat various cancers.</p> <p>SciBX 6(34); doi:10.1038/scibx.2013.918 Published online Sept. 5, 2013</p>	Unpatented; available for partnering	<p>Zhang, S. <i>et al. Cancer Res.</i>; published online Aug. 1, 2013; doi:10.1158/0008-5472.CAN-12-1803 Contact: Dihua Yu, The University of Texas MD Anderson Cancer Center, Houston, Texas e-mail: dyu@mdanderson.org</p>