This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer; bone metastases	Src; tumor necrosis factor-related apoptosis-inducing ligand (TRAIL); chemokine C-X-C motif ligand 12 (CXCL12; SDF-1)	<p>Studies in patient samples and mice suggest that inhibiting Src, TRAIL or CXCL12 could prevent bone metastases from breast cancer. Genomic analyses of primary breast tumors found that Src activation correlated with late-onset bone metastasis, while analyses of tumors metastatic to the bone identified Src, TRAIL and CXCL12 as factors that promoted cancer cell survival and growth. In two mouse models of metastatic breast cancer, blocking Src reduced the incidence of bone metastases and increased survival compared with controls. Future studies could include clinical testing of Src inhibitors to prevent or treat metastasis after surgery to remove primary breast tumors.</p> <p>Bristol-Myers Squibb Co.'s Sprycel dasatinib, a Bcr-Abl kinase and Src inhibitor, is marketed to treat acute lymphoblastic leukemia (ALL) and chronic myelogenous leukemia (CML) and is in Phase II and Phase III testing to treat castration-sensitive and castration-resistant prostate cancer, respectively. AstraZeneca plc's selective Src inhibitor AZD0530 is in Phase II testing to treat breast and prostate cancer in patients with metastatic bone disease, and to treat advanced ovarian cancer and recurrent osteosarcoma localized to the lung.</p> <p>SciBX 2(28); doi:10.1038/scibx.2009.1104 Published online July 23, 2009</p>	Patent and licensing status undisclosed	<p>Zhang, X. <i>et al. Cancer Cell</i>; published online July 8, 2009; doi:10.1016/j.ccr.2009.05.017</p> <p>Contact: Joan Massagué, Howard Hughes Medical Institute, Chevy Chase, Md. e-mail: massaguj@mskcc.org</p>