This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer; metastases	Matrix metalloproteinase 1 (MMP1); ADAM metallopeptidase with thrombospondin type 1 motif 1 (ADAMTS1); epidermal growth factor receptor (EGFR)	<p>Studies in mice and in cell culture suggest that inhibitors of MMP1, ADAMTS1 and/or EGFR could help treat bone metastasis associated with breast cancer. In breast cancer patients, MMP1 serum levels and ADAMTS1 and MMP1 expression in primary tumors correlated with increased risk of bone metastasis. In mice, injection of MMP1/ADAMTS1 double knockdown breast cancer cells led to fewer bone metastases and longer survival than injection of cancer cells expressing one or both proteins. In mouse models of bone metastasis, EGFR inhibitors reduced osteolytic bone metastases compared with vehicle control. Future studies will further elucidate the mechanism by which EGF-like ligands promote bone metastasis. At least 15 companies have EGFR inhibitors that are marketed or approved to treat various cancers. At least nine companies have EGFR inhibitors in Phase III testing to treat cancer.</p> <p>SciBX 2(29); doi:10.1038/scibx.2009.1138 Published online July 30, 2009</p>	Unpatented; available for licensing	<p>Lu, X. <i>et al. Genes Dev.</i>; published online July 16, 2009; doi:10.1101/gad.1824809</p> <p>Contact: Yibin Kang, Princeton University, Princeton, N.J. e-mail: ykang@princeton.edu</p>