This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Chemokine CXC motif ligand 1 (CXCL1; GRO; MGSA); CXCL2 (MIP2); CXC chemokine receptor 2 (CXCR2; IL8RB)	<p><i>In vitro</i> and mouse studies suggest antagonizing CXCR2 could prevent resistance to chemotherapy and metastasis in breast cancer. In primary human breast cancer and metastasis samples, CXCL1 and CXCL2 amplifications were associated with metastasis and led to overexpression of the cancer survival factors, particularly following chemotherapy. In two mouse models of breast cancer metastasis to the lung, a CXCR2 antagonist plus chemotherapy decreased tumor growth and metastatic burden compared with either treatment alone. Next steps include testing various CXCR2 antagonists with various chemotherapies in preclinical breast cancer models.</p> <p>At least five companies have CXCR2 antagonists in clinical and preclinical development for pulmonary indications or for prevention of transplant rejection.</p> <p>SciBX 5(31); doi:10.1038/scibx.2012.810 Published online Aug. 9, 2012</p>	Patent application filed; available for licensing	<p>Acharyya, S. <i>et al. Cell</i>; published online July 6, 2012; doi:10.1016/j.cell.2012.04.042</p> <p>Contact: Joan Massagué, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: massagu@mskcc.org</p>