This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Cyclooxygenase-2 (COX-2); ST6 (α -N-acetyl-neuraminyl-2,3- β -galactosyl-1,3)-N-acetylgalactosaminide α -2,6-sialyltransferase 5 (ST6GALNAC5)	<p>A study in human cells and mice suggests that COX-2 and ST6GALNAC could be antagonized to prevent breast cancer metastasis to the brain. Comparison of gene expression between primary breast tumors and metastases identified 17 genes correlated with brain-specific metastasis. In a cell-culture assay of brain metastasis, small hairpin RNA-mediated silencing of two of the genes, COX-2 and ST6GALNAC5, decreased invasiveness compared with that seen in untreated controls. In a mouse model of metastatic breast cancer, silencing of ST6GALNAC decreased brain metastasis and increased survival compared with those in mock-treated controls. Next steps may include further exploring the therapeutic potential of these and the other 15 genes identified in this study.</p> <p>SciBX 2(21); doi:10.1038/scibx.2009.862 Published online May 28, 2009</p>	Patent and licensing status undisclosed	<p>Bos, P. <i>et al. Nature</i>; published online May 6, 2009; doi:10.1038/nature08021</p> <p>Contact: Joan Massagué, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: j-massague@ski.mskcc.org</p>