This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute lymphoblastic leukemia (ALL)	Stem cell factor (KITLG; SCF; c-Kit ligand)	<p>A mouse study and human biopsy analyses suggest SCF could be targeted to treat leukemia. In a mouse xenograft model of ALL, an SCF antibody increased hematopoietic stem (HS) cell mobilization and blocked recruitment of HS cells to tumor-induced malignant stem cell niches in the bone marrow. Next steps include testing the effect of SCF blockade in other lymphatic cancers and starting clinical trials of SCF inhibitors as an adjunct to other ALL therapies.</p> <p>Genzyme Corp.'s Mozobil plerixafor, an inhibitor of the SCF receptor CXCR4 chemokine receptor 4 (CXCR4; NPY3R) was approved as an adjunct to therapy for non-Hodgkin's lymphoma (NHL) and multiple myeloma (MM) in December 2008.</p> <p>Motesanib diphosphate (AMG 706) from Amgen Inc. and Takeda Pharmaceutical Co. Ltd. is in Phase III trials for non-small cell lung cancer (NSCLC).</p> <p>SuperGen Inc.'s MP0470 SCF inhibitor is in Phase I trials to treat solid tumors.</p> <p>SciBX 2(3); doi:10.1038/scibx.2009.83 Published online Jan. 22, 2009</p>	Patent pending; available for licensing	<p>Colomne, A. <i>et al. Science</i>; published online Dec. 19, 2008; doi:10.1126/science.1164390</p> <p>Contact: Dorothy Sipkins, University of Chicago, Chicago, Ill. e-mail: dsipkins@medicine.bsd.uchicago.edu</p>