This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Myeloid leukemia cell differentiation protein (MCL1; MCL-1)	<p><i>In vitro</i> assays and cell culture studies identified inhibitors of MCL-1 that could help treat cancer. <i>In vitro</i>, the MCL-1 BCL-2 homology domain 3 (BH3) helix was a potent inhibitor of MCL-1. In human leukemia and multiple myeloma (MM) cells, a hydrocarbon-stapled MCL-1 BH3 helix resulted in dose-dependent increases in sensitivity to proapoptotic agents compared with vehicle or proapoptotic agents alone. Next steps include evaluating the MCL-1-selective peptides in animal models.</p> <p>ChemGenex Pharmaceuticals Ltd.'s Tekinex omacetaxine mepesuccinate, a small molecule that targets the ribosome to inhibit synthesis of oncoproteins including MCL-1, is under review for treating chronic myelogenous leukemia (CML). The compound is also in Phase II testing for myelodysplastic syndrome (MDS).</p> <p>AT-101, a small molecule pan-inhibitor of the B-cell lymphoma 2 (BCL-2; BCL2) family of proteins from Ascenta Therapeutics Inc., is in Phase II testing for multiple cancers.</p> <p>SciBX 3(25); doi:10.1038/scibx.2010.764 Published online June 24, 2010</p>	Patent application filed; licensing status undisclosed	<p>Stewart, M.L. <i>et al. Nat. Chem. Biol.</i>; published online June 20, 2010; doi:10.1038/nchembio.391</p> <p>Contact: Loren D. Walensky, Dana-Farber Cancer Institute, Boston, Mass. e-mail: Loren_Walensky@dfci.harvard.edu</p>