This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute myelogenous leukemia (AML)	DNA (cytosine-5-)-methyltransferase 3 α (DNMT3A)	<i>In vitro</i> and mouse studies suggest eliminating DNMT3A-mutant preleukemia cells could help prevent AML. Sequencing of peripheral blood samples from patients at diagnosis showed a common leukemia-associated mutation in DNMT3A. The mutation was present in leukemia blast cells and in T cells and hematopoietic progenitor cells that lack other cancer-associated mutations. In cell samples from five patients treated with chemotherapy, DNMT3A-mutant cells persisted through remission and relapse. In mouse xenograft repopulation assays, transplanted DNMT3A-mutant hematopoietic progenitors from patients had a competitive advantage over nonmutant cells. Next steps could include determining the effects of eliminating DNMT3A-mutant cells on AML outcomes.	Patent and licensing status unavailable	Shlush, L.I. <i>et al. Nature</i> ; published online Feb. 12, 2014; doi:10.1038/nature13038 Contact: John E. Dick, University of Toronto, Toronto, Ontario, Canada e-mail: jdick@uhnresearch.ca
SciBX 7(10); doi:10.1038/scibx.2014.278 Published online March 13, 2014				