This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute lymphoblastic leukemia (ALL)	MicroRNA-19 (<i>miR-19</i>); phosphoinositide 3-kinase (PI3K); protein kinase B (PKB; Akt)	<p><i>In vitro</i> and mouse studies suggest that antagonizing <i>miR-19</i> could help treat T cell-ALL. In T cell samples from ALL patients, <i>miR-19</i> expression was 5–17 times higher than that in noncancerous cells. In mice, injection of hematopoietic progenitor cells expressing <i>miR-19</i> led to T cell-ALL, whereas injection of an empty vector did not. A genetic screen determined that <i>miR-19</i> regulates several components of the PI3K-Akt pathway. Next steps include ongoing testing of <i>miR-19</i> antagonists and testing the therapeutic potential of using PI3K-Akt-targeting drugs in <i>miR-19</i>-overexpressing cancers.</p> <p>At least 15 companies have inhibitors of the PI3K-Akt pathway in development stages ranging from preclinical to marketed.</p> <p>SciBX 3(9); doi:10.1038/scibx.2010.270 Published online March 4, 2010</p>	Provisional patent application filed; available for licensing	<p>Mavrakis, K. <i>et al. Nat. Cell Biol.</i>; published online Feb. 28, 2010; doi:10.1038/ncb2037</p> <p>Contact: Hans-Guido Wendel, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: wendelh@mskcc.org</p>