This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Solid tumors; breast cancer; colon cancer; lung cancer	DNA methyltransferase	<p>Mouse studies suggest that subcytotoxic doses of DNA methyltransferase inhibitors could help treat solid tumors. In mice receiving human lung, breast or colon cancer cells that had been pretreated with low, subcytotoxic doses of decitabine or azacitidine, the resulting xenograft tumors were smaller than those produced by the respective untreated cancer cell lines. In mice engrafted with primary human breast cancer tissue, low-dose azacitidine decreased tumor growth compared with vehicle. Ongoing and planned work includes Phase II trials of subcytotoxic doses of azacitidine to treat non-small cell lung cancer (NSCLC), breast cancer and colon cancer.</p> <p>Celgene Corp., Pfizer Inc. and Nippon Shinyaku Co. Ltd. market the DNA methyltransferase inhibitor Vidaza azacitidine to treat myelodysplastic syndrome (MDS). Celgene and Pfizer also market the drug to treat acute myelogenous leukemia (AML).</p> <p>Astex Therapeutics Ltd., Eisai Co. Ltd. and Johnson & Johnson market the DNA methyltransferase inhibitor Dacogen decitabine to treat MDS.</p> <p>SG-110 (S110), a DNA (cytosine-5)-methyltransferase 1 (DNMT1) inhibitor from Astex, is in Phase I testing to treat solid tumors, MDS and AML.</p> <p>SciBX 5(14); doi:10.1038/scibx.2012.365 Published online April 5, 2012</p>	Unpatented; unlicensed	<p>Tsai, H.-C. <i>et al. Cancer Cell</i>; published online March 20, 2012; doi:10.1016/j.ccr.2011.12.029</p> <p>Contact: Stephen B. Baylin, The Johns Hopkins Hospital, Baltimore, Md. e-mail: sbaylin@jhmi.edu</p> <p>Contact: Cynthia A. Zahnow, same affiliation as above e-mail: zahnoci@jhmi.edu</p>