This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Colorectal cancer	Aurora kinase A (AURKA; Aurora-A); AURKB (Aurora-B)	<p><i>In vitro</i> and mouse studies suggest furanopyrimidine-based dual AURKA and AURKB inhibitors could help treat cancer. In <i>in vitro</i> assays, the lead furanopyrimidine selectively inhibited AURKA and AURKB at nanomolar IC₅₀ values. In a mouse xenograft model for human colorectal cancer, the lead compound decreased tumor growth compared with vehicle without causing toxicity. Next steps could include testing the lead compound in animal models for other cancers.</p> <p>Takeda Pharmaceutical Co. Ltd.'s alisertib (MLM8237), a second-generation AURKA inhibitor, is in Phase III testing to treat T cell lymphoma and Phase II testing or earlier for other cancers.</p> <p>EntreMed Inc.'s ENMD-2076, an inhibitor of AURKA and multiple tyrosine kinases, is in Phase II testing to treat sarcoma, breast cancer and ovarian cancer and Phase I testing for other cancers.</p> <p>Astex Pharmaceuticals Inc.'s AT9283, a small molecule inhibitor of AURKA, AURKB, Janus kinase-2 (JAK-2), FMS-like tyrosine kinase 3 (FLT3; CD135) and ABL T315I, is in Phase II testing to treat multiple myeloma (MM) and Phase I testing for other cancers.</p> <p>SciBX 6(30); doi:10.1038/scibx.2013.787 Published online Aug. 8, 2013</p>	Patent and licensing status unavailable	<p>Shiao, H.-Y. <i>et al. J. Med. Chem.</i>; published online June 28, 2013; doi:10.1021/jm4006059</p> <p>Contact: Hsing-Pang Hsieh, National Health Research Institutes, Zhunan, Taiwan e-mail: hphsieh@nhri.org.tw</p>