This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	c-Myc (MYC); mammalian target of rapamycin (mTOR; FRAP; RAFT1); 3-phosphoinositide dependent protein kinase-1 (PDPK1); polo-like kinase 1 (PLK1; STPK13)	<p>Cell culture and mouse studies suggest combining PLK1 and mTOR inhibitors could help treat MYC-driven cancers. In cultured cells, PLK1 coimmunoprecipitated and phosphorylated MYC in a PDPK1-dependent manner. In a mouse xenograft model of colorectal cancer, the mTOR inhibitor BEZ235 plus a PLK1 inhibitor decreased MYC expression and tumor growth compared with vehicle or either inhibitor alone. Next steps could include combining PLK1 inhibitors with mTOR and PI3K inhibitors.</p> <p>BEZ235, a dual inhibitor of PI3K and mTOR from Novartis AG, is in Phase I/II testing to treat cancer. At least nine companies have PLK1 inhibitors in Phase III testing or earlier to treat cancer.</p> <p>SciBX 6(34); doi:10.1038/scibx.2013.919 Published online Sept. 5, 2013</p>	Patent application filed; available for licensing	<p>Tan, J. <i>et al. Cancer Discov.</i>; published online July 25, 2013; doi:10.1158/2159-8290.CD-12-0595</p> <p>Contact: Qiang Yu, Genome Institute of Singapore, Singapore e-mail: yuq@gis.a-star.edu.sg</p>