

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Chronic myelogenous leukemia (CML)	MAP kinase interacting serine-threonine kinase 1 (MKNK1; MNK1); MKNK2 (MNK2); eukaryotic translation initiation factor 4E (eIF4E)	<p><i>In vitro</i> and mouse studies suggest inhibiting MNK1 and MNK2 could help treat the blast crisis phase of CML by reducing eIF4E activation. Self-renewal of granulocyte macrophage progenitors (GMPs) is associated with blast crisis. In GMPs from patients with CML, MNK1 and MNK2 inhibition decreased eIF4E activation and self-renewal capacity compared with no inhibition. In xenograft mouse models for CML blast crisis, an MNK1 and MNK2 inhibitor decreased GMP engraftment compared with vehicle. Ongoing work includes testing dual MNK and BCR-ABL tyrosine kinase inhibitors in cellular and animal models for CML.</p> <p>Isis Pharmaceuticals Inc.'s ISIS-EIF4ERx, a second-generation antisense oligonucleotide targeting eIF4E, is in Phase I/II testing to treat non-small cell lung cancer (NSCLC) and prostate cancer.</p> <p>Clavis Pharma ASA and Translational Therapeutics Inc. have ribavirin elaidate (CP-4033; TRX-201), a Lipid Vector Technology derivative of ribavirin that inhibits eIF4E, in preclinical testing to treat thyroid cancer.</p> <p><i>SciBX</i> 6(26); doi:10.1038/scibx.2013.652 Published online July 11, 2013</p>	Unpatented; available for partnering	<p>Lim, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 4, 2013; doi:10.1073/pnas.1301838110 Contact: S. Tiong Ong, Duke-NUS Graduate Medical School Singapore, Singapore e-mail: sintiong.ong@duke-nus.edu.sg</p>