

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	SET and MYND domain containing 3 (SMYD3); K-Ras (KRAS); MAP kinase kinase 1 (MAP2K1; MEK1); MAP2K2 (MEK2)	<p>Mouse studies suggest antagonizing SMYD3 could be useful for treating cancers driven by <i>KRAS</i> mutations. In mouse models of <i>Kras</i>-driven pancreatic and lung cancer, <i>Smyd3</i> knockout mice showed less tumor growth and longer survival than wild-type controls. In one of the mouse models, <i>Smyd3</i> deletion increased the potency of the MEK1 and 2 inhibitor Mekinist trametinib, which acts downstream of KRAS. Next steps include identifying and testing SMYD3 inhibitors. GlaxoSmithKline plc markets Mekinist to treat metastatic melanoma with BRAF V600E or V600K mutations. The drug is in Phase II testing to treat patients with non-small cell lung cancer (NSCLC) with <i>KRAS</i> mutations.</p> <p>SciBX 7(22); doi:10.1038/scibx.2014.641 Published online June 5, 2014</p>	Unpatented; licensing status not applicable	<p>Mazur, P.K. <i>et al. Nature</i>; published online May 21, 2014; doi:10.1038/nature13320 Contact: Julien Sage, Stanford University School of Medicine, Stanford, Calif. e-mail: julsage@stanford.edu Contact: Or Gozani, Stanford University, Stanford, Calif. e-mail: ogozani@stanford.edu</p>