

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lung cancer	TANK-binding kinase 1 (TBK1); inhibitor of κ -light polypeptide gene enhancer in B cells kinase- ϵ (IKBKE; IKK-i); Janus kinase-1 (JAK-1); JAK-2; K-Ras (KRAS)	Cell culture and mouse studies suggest inhibiting TBK1 could help treat lung cancers driven by <i>KRAS</i> mutations. In cultured cells, the JAK-1 and JAK-2 inhibitor momelotinib also inhibited TBK1 and IKBKE, two kinases required for <i>KRAS</i> -mediated oncogenic cytokine expression. In a mouse model of <i>KRAS</i> -driven lung cancer, momelotinib decreased tumor volume more than docetaxel after four weeks of treatment. In the mouse model, momelotinib plus a MEK inhibitor increased cancer cell death compared with either treatment alone. Next steps could include clinical testing of momelotinib with or without a MEK inhibitor in <i>KRAS</i> -mutant lung cancers. Gilead Sciences Inc.'s momelotinib (CYT387) is in Phase III testing to treat myeloproliferative disorder.	Findings unpatented; licensing status not applicable	Zhu, Z. <i>et al. Cancer Discov.</i> ; published online Jan. 20, 2014; doi:10.1158/2159-8290.CD-13-0646 Contact: William C. Hahn, Dana-Farber Cancer Institute, Boston, Mass. e-mail: william_hahn@dfci.harvard.edu
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