

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Non-small cell lung cancer (NSCLC)	Serine/threonine kinase 11 (STK11; LKB1); <i>K-Ras</i>	<p>Mouse and cell culture studies suggest the metformin analog phenformin could help treat <i>K-Ras</i>-driven NSCLCs with <i>LKB1</i> mutations. In an <i>LKB1</i>-deficient human NSCLC cell line, phenformin induced apoptosis, whereas metformin did not. In mice bearing <i>K-Ras</i>-driven <i>Lkb1</i>-deficient NSCLC tumors, oral phenformin led to lower tumor burden and greater survival than vehicle. Next steps could include testing phenformin in additional models of <i>LKB1</i>-deficient cancers.</p> <p>Metformin is a generic drug approved to treat diabetes and is in clinical testing to treat various cancers. Phenformin was previously marketed to treat diabetes but was withdrawn by the FDA in 1978 due to toxicity.</p> <p>SciBX 6(6); doi:10.1038/scibx.2013.138 Published online Feb. 14, 2013</p>	Patent and licensing status unavailable	<p>Shackelford, D.B. <i>et al.</i> <i>Cancer Cell</i>; published online Jan. 24, 2013; doi:10.1016/j.ccr.2012.12.008</p> <p>Contact: Reuben J. Shaw, Salk Institute for Biological Studies, La Jolla, Calif. e-mail: shaw@salk.edu</p> <p>Contact: David B. Shackelford, same affiliation as above e-mail: dshackelford@mednet.ucla.edu</p>