

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Cancer</b>				
Breast cancer	TANK-binding kinase 1 (TBK1); estrogen receptor	<p><i>In vitro</i>, mouse and patient sample studies suggest inhibiting TBK1 could help treat tamoxifen-resistant breast cancer and that measuring <i>TBK1</i> expression could help predict response to tamoxifen. In breast cancer cell lines, overexpression of <i>TBK1</i> increased estrogen receptor transcriptional activation and decreased response to the estrogen receptor antagonist tamoxifen compared with normal <i>TBK1</i> expression, and siRNA against <i>TBK1</i> increased sensitivity to tamoxifen compared with scrambled siRNA. In mouse xenograft models of breast cancer, pharmacological inhibition of TBK1 plus tamoxifen synergistically inhibited tumor growth. In samples from patients with breast cancer, high TBK1 expression correlated with poor response to tamoxifen and high relapse potential. Next steps could include validating the association in additional samples and developing TBK1 inhibitors.</p> <p>Tamoxifen is a generic estrogen receptor antagonist marketed to treat breast cancer.</p> <p><b>SciBX 7(7); doi:10.1038/scibx.2014.194</b>  <b>Published online Feb. 20, 2014</b></p>	Patent and licensing status unavailable	<p>Wei, C. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Jan. 21, 2014; doi:10.1073/pnas.1316255111</p> <p><b>Contact:</b> Hui Zhong, Beijing Institute of Biotechnology, Beijing, China            e-mail: <a href="mailto:towall@yahoo.com">towall@yahoo.com</a></p>