

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Melanoma	Hypoxia-inducible factor 1 α (HIF1A; HIF1 α); endothelial PAS domain protein 1 (EPAS1; HIF2A)	<p><i>In vitro</i> and mouse studies suggest inhibiting HIF1A or HIF2A could prevent metastatic melanoma. In metastatic human melanoma cell lines, hypoxia induced HIF1A and HIF2A expression and increased invasiveness compared with normal oxygen conditions. In these cell lines, small interfering RNA against <i>HIF1A</i> or <i>HIF2A</i> decreased invasiveness compared with scrambled siRNA. In a mouse xenograft model for melanoma, a deficiency in <i>Hif1a</i> or <i>Hif2a</i> led to decreased lymph node metastases compared with those seen in wild-type controls. Next steps could include inhibiting HIF1A and/or HIF2A in xenograft models for established metastatic melanoma.</p> <p>Calando Pharmaceuticals Inc. and Cerulean Pharma Inc. have CRLX101 (formerly IT-101), a dual inhibitor of topoisomerase I (TOP1) and HIF1A, in Phase II testing to treat gastric and ovarian cancers and small cell lung cancer (SCLC). The compound is also in Phase Ib/IIa testing to treat renal cell carcinoma (RCC).</p> <p>SciBX 6(15); doi:10.1038/scibx.2013.361 Published online April 18, 2013</p>	Patent and licensing status unavailable	<p>Hanna, S.C. <i>et al.</i> <i>J. Clin. Invest.</i>; published online April 8, 2013; doi:10.1172/JCI66715 Contact: William Y. Kim, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. e-mail: wykim@med.unc.edu</p>