

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	DJ-1 (PARK7); hypoxia-inducible factor 1 α (HIF1 α)	<p>Studies in cell culture suggest that inhibiting DJ-1 signaling may be useful for treating cancer. In the U2OS human osteosarcoma cell line, small interfering RNA-based inhibition of DJ-1 significantly increased hypoxia-induced cell death compared with that seen in controls expressing normal levels of DJ-1 ($p < 0.001$). Similar effects were seen in the DJ-1^{-/-} mouse embryonic fibroblast cell line, suggesting that DJ-1 is an upstream activator of HIF-1α. Next steps could include determining whether DJ-1 protects not only cancer cells but also neuronal cells from hypoxia-induced cell death, such as occurs in Parkinson's disease.</p> <p>EZN-2968 (formerly SPC2968), a HIF-1α antagonist from Enzon Pharmaceuticals Inc. and Santaris Pharma A/S, is in Phase I testing to treat solid tumors.</p> <p>PX-478, a small molecule inhibitor of HIF-1α from Oncothyreon Inc., is in Phase I testing to treat advanced metastatic cancer and lymphoma.</p> <p>SciBX 2(4); doi:10.1038/scibx.2009.130 Published online Jan. 29, 2009</p>	Patent and licensing status unavailable	<p>Vasseur, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Jan. 12, 2009; doi:10.1073/pnas.0812745106 Contact: Tak Wah Mak, Princess Margaret Hospital, Toronto, Ontario, Canada e-mail: tmak@uhnresearch.ca</p>