

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Thioredoxin reductase 1 (TXNRD1)	<i>In vitro</i> studies suggest that proapoptotic gold(I) <i>N</i> -heterocyclic carbene complexes could be useful for treating cancer. The complexes induced a caspase-dependent mitochondrial apoptosis pathway. In MDA-MB-231 breast cancer cells, the lead complex inhibited TXNRD1 by about 50% to induce apoptosis. Studies in additional cell lines and animal models are necessary to further validate the compounds' therapeutic potential. Pharminox Ltd.'s thioredoxin-targeting PMX2058 is in preclinical development for cancer; Pharmacyclics Inc.'s thioredoxin-targeting Xcytrin motexafin gadolinium is in Phase III testing; Oncothyreon Inc.'s PX-12, a thioredoxin inhibitor, is in a Phase Ib trial to treat metastatic cancer.	Complexes not patented; available for licensing	Hickey, J. <i>et al.</i> <i>J. Am. Chem. Soc.</i> ; published online Aug. 26, 2008; doi:10.1021/ja804027j Contact: Susan J. Berners-Price, The University of Western Australia, School of Biomedical, Biomolecular and Chemical Sciences, Crawley, Western Australia e-mail: sue.berners-price@uwa.edu.au Contact: Aleksandra Filipovska, Laboratory for Cancer Medicine, Western Australian Institute for Medical Research, Perth, Western Australia e-mail: afilipov@waimr.uwa.edu.au