This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Solid tumors	NAD(P)H dehydrogenase quinone 1 (NQO1; QR1)	<p><i>In vitro</i> and mouse studies identified deoxyxyboquinone (DNQ) as a new NQO1 substrate that could help treat solid tumors. In human breast cancer and non-small cell lung cancer (NSCLC) cell lines expressing the redox enzyme NQO1, DNQ induced more cell death than the NQO1-targeting compound β-lapachone. In the cancer cell lines, DNQ induced lethality in NQO1-expressing cells but not in NQO1-deficient cells. In a mouse Lewis lung carcinoma model, DNQ decreased tumor growth with similar potency but at a six-fold lower dose than β-lapachone. Next steps include developing DNQ analogs with better stability. Edison Pharmaceuticals Inc.'s EPI-743, an oral small molecule targeting NQO1, is in Phase II/III testing to treat mitochondrial disease.</p> <p>SciBX 5(21); doi:10.1038/scibx.2012.550 Published online May 24, 2012</p>	Patents filed; in negotiations to license technology to StemPAR Sciences Inc., which has already licensed β -lapachone	<p>Huang, X. <i>et al. Cancer Res.</i>; published online April 24, 2012; doi:10.1158/0008-5472.CAN-11-3135</p> <p>Contact: David A. Boothman, The University of Texas Southwestern Medical Center, Dallas, Texas</p> <p>e-mail: david.boothman@utsouthwestern.edu</p>