This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Nuclear factor (erythroid-derived 2)-like 2 (NFE2L2; NRF2); K-RAS (KRAS)	<p>Mouse and cell culture studies suggest inhibiting NRF2 could help overcome chemotherapy resistance driven by oncogenic K-RAS. Levels of NRF2 in human tumors correlate with resistance to chemotherapy. In human cancer cell lines, siRNA-mediated knockdown of <i>NRF2</i> reversed resistance to cisplatin chemotherapy caused by overexpression of oncogenic mutant <i>KRAS</i>. In mouse models of <i>Kras</i>-mutant lung cancer, cisplatin plus brusatol—a nanomolar inhibitor of NRF2 signaling—decreased tumor burden and increased survival compared with either treatment alone. Next steps include further evaluating brusatol and screening for additional specific and potential inhibitors of the NRF2 signaling pathway.</p> <p>SciBX 7(45); doi:10.1038/scibx.2014.1314 Published online Nov. 20, 2014</p>	Unpatented; licensing status not applicable	<p>Tao, S. <i>et al. Cancer Res.</i>; published online Oct. 22, 2014; doi:10.1158/0008-5472.CAN-14-1439 Contact: Donna D. Zhang, The University of Arizona, Tucson, Ariz. e-mail: dzhang@pharmacy.arizona.edu</p>