This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	P glycoprotein (ABCB1; MDR; P-gp)	<p>A study in cell culture identified P-gp-selective isatin-β-thiosemicarbazones that could be useful for treating drug-resistant cancers. P-gp pumps cancer therapeutics out of the cell, conferring multidrug resistance. In a cell proliferation assay, eight of the compounds showed greater antiproliferative activity against P-gp-expressing cancer cells than against a non-P-gp-expressing cell line. The compounds had IC_{50} values in the 2.4–20.7 μM range. Next steps include developing analogs with higher solubility and selectivity for P-gp.</p> <p>Oraxol, an oral formulation of paclitaxel plus the P-gp inhibitor HM30181A from Hanmi Pharmaceuticals Co. Ltd., is in Phase I testing to treat cancer.</p> <p>SciBX 2(21); doi:10.1038/scibx.2009.868 Published online May 28, 2009</p>	Patent and licensing status unavailable	<p>Hall, M.D. <i>et al. J. Med. Chem.</i>; published online April 27, 2009; doi:10.1021/jm800861c</p> <p>Contact: Michael M. Gottesman, National Institutes of Health, Bethesda, Md. e-mail: gottesmm@mail.nih.gov</p>