This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer	ATP-binding cassette, sub-family G (WHITE) member 2 (ABCG2)	<p>Synthesis studies suggest that an ABCG2 inhibitor derived from tariquidar may be useful for reversing drug resistance in cancer. ABCG2 is an efflux pump protein expressed in some cancer cells that contributes to drug resistance. In breast cancer cells, 100 nM of the ABCG2 inhibitor reversed topotecan resistance. Next steps include evaluating the pharmacokinetics and pharmacodynamics of the inhibitor in animals with drug-resistant ABCG2-expressing xenografts.</p> <p>Tariquidar is a generic small molecule inhibitor of the efflux pump protein ATP-binding cassette sub-family A member 1 (ABCB1).</p> <p>Hycamtin topotecan, a topoisomerase inhibitor from GlaxoSmithKline plc, is marketed to treat small cell lung cancer and cervical cancer.</p> <p>SciBX 2(6); doi:10.1038/scibx.2009.222 Published online Feb. 12, 2009</p>	Unpatented; unavailable for licensing	<p>Kühnle, M. <i>et al. J. Med. Chem.</i>; published online Jan. 26, 2009; doi:10.1021/jm8013822</p> <p>Contact: Armin Buschauer, University of Regensburg, Regensburg, Germany e-mail: armin.buschauer@chemie.uni-regensburg.de</p>