This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Topoisomerase I (TOP1); TOP2	<p><i>In vitro</i> and mouse studies identified a class of dual TOP1 and TOP2 inhibitors that could help treat breast and other cancers. Synthesis and <i>in vitro</i> testing of indeno[1,2-<i>c</i>]quinoline analogs identified a lead compound that inhibited TOP1 and TOP2 with low micromolar IC₅₀ values <i>in vitro</i> and inhibited proliferation of a variety of cancer cell lines at submicromolar concentrations. In a mouse xenograft model of breast cancer, the lead compound decreased tumor growth and increased survival compared with vehicle control. Ongoing work includes optimization of the lead compound. Pfizer Inc. markets the TOP1 inhibitor Camptosar irinotecan to treat non-small cell lung cancer (NSCLC) and colorectal cancer. Hycamtin topotecan, a TOP1 inhibitor from GlaxoSmithKline plc, is marketed to treat small cell lung cancer and cervical cancer.</p> <p>SciBX 3(31); doi:10.1038/scibx.2010.948 Published online Aug. 12, 2010</p>	Patented by Kaohsiung Medical University; available for licensing	<p>Tseng, C.-H. <i>et al. J. Med. Chem.</i>; published online July 28, 2010; doi:10.1021/jm1005447</p> <p>Contact: Yeh-Long Chen, Kaohsiung Medical University, Kaohsiung City, Taiwan e-mail: yeloch@kmu.edu.tw</p> <p>Contact: Chia-Ning Yang, National Cheng Kung University, Tainan, Taiwan e-mail: cnyang@nuk.edu.tw</p>