This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Smoothened (SMO)	<p><i>In vitro</i> studies identified an oxysterol-binding site on SMO that could guide development of new drugs targeting the hedgehog pathway. Oxysterols were known to activate hedgehog signaling, but their molecular target in the pathway was unclear. <i>In vitro</i>, 20(S)-hydroxycholesterol activated hedgehog signaling at low micromolar concentrations and was noncompetitively blocked by the SMO inhibitor cyclopamine. Next steps include exploring whether oxysterol-targeted drugs could be used as anti-hedgehog agents and discovering new sterol-based modulators of hedgehog signaling.</p> <p>At least six companies have SMO antagonists in preclinical to Phase II development for cancer.</p> <p>SciBX 5(4); doi:10.1038/scibx.2012.93 Published online Jan. 26, 2012</p>	Unpatented; unavailable for licensing	<p>Nachtergaele, S. <i>et al. Nat. Chem. Biol.</i>; published online Jan. 8, 2012; doi:10.1038/nchembio.765</p> <p>Contact: Rajat Rohatgi, Stanford University School of Medicine, Stanford, Calif. e-mail: rrohhatgi@stanford.edu</p> <p>Contact: Douglas Covey, Washington University in St. Louis School of Medicine, St. Louis, Mo. e-mail: dcovey@wustl.edu</p>