This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Smoothed (SMO)	<p>Cell culture studies suggest a small molecule antagonist of oxysterol binding to SMO could help treat cancer. Constitutive activation of SMO by mutation or the ligand sonic hedgehog homolog (SHH) drives the growth of multiple tumors. In cell culture, an antagonist that competes with the Smo activator oxysterol for binding decreased downstream Shh pathway signaling compared with vehicle. Next steps include testing the effect of the antagonist on tumor growth and combining the oxysterol binding inhibitor with SMO antagonists that target a distinct SMO binding site.</p> <p>Roche's Genentech Inc. unit and Chugai Pharmaceutical Co. Ltd. market the SMO inhibitor Erivedge vismodegib to treat basal cell carcinoma. Erivedge also is in Phase II testing for bone and brain cancer. Genentech discovered Erivedge and jointly validated the compound with Curis Inc.</p> <p>At least four other companies have SMO antagonists in Phase III testing or earlier to treat various cancers.</p> <p>SciBX 6(32); doi:10.1038/scibx.2013.856 Published online Aug. 22, 2013</p>	Unpatented; licensing status not applicable	<p>Nedelcu, D. <i>et al. Nat. Chem. Biol.</i>; published online July 7, 2013; doi:10.1038/nchembio.1290</p> <p>Contact: Adrian Salic, Harvard Medical School, Boston, Mass. e-mail: asalic@hms.harvard.edu</p>