

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lung cancer	Notch 3 (NOTCH3)	<p>Cell culture and mouse studies suggest inhibiting NOTCH3 could help treat lung cancer by eliminating tumor-propagating cells (TPCs). In mice engrafted with TPCs expressing three propagation markers including <i>Notch3</i>, tumor burdens were elevated and survival was reduced compared with mice engrafted with cells not expressing these markers. In mice with TPCs, cisplatin increased the proportion of TPCs in tumors compared with vehicle, suggesting TPCs could be resistant to chemotherapy. In xenograft mouse models of lung cancer, small hairpin RNA-mediated knockdown of <i>Notch3</i> decreased tumor burden compared with no knockdown. Next steps include understanding the molecular basis for cisplatin resistance.</p> <p>OncoMed Pharmaceuticals Inc.'s OMP-59R5, an antibody to NOTCH3, is in Phase II or earlier testing to treat various cancers. At least four companies have NOTCH inhibitors in Phase I testing to treat cancer.</p> <p>SciBX 6(31); doi:10.1038/scibx.2013.824 Published online Aug. 15, 2013</p>	Patent and licensing status undisclosed	<p>Zheng, Y. <i>et al. Cancer Cell</i>; published online June 8, 2013; doi:10.1016/j.ccr.2013.05.021 Contact: E. Alejandro Sweet-Cordero, Stanford University School of Medicine, Stanford, Calif. e-mail: ascor@stanford.edu Contact: Erica L. Jackson, Genentech Inc., South San Francisco, Calif. e-mail: jackson.eric@gene.com</p>