This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Mammalian target of rapamycin (mTOR; FRAP; RAFT1); phosphoinositide 3-kinase (PI3K)	<p>A study in mice identified hybrid wortmannin-rapamycin conjugates that could be useful for treating cancer. Wortmannin is a fungus-derived metabolite that inhibits PI3K signaling, whereas rapamycin targets mTOR. In a mouse model of human glioma, colorectal cancer and renal cancer, the hybrid conjugates reduced tumor growth compared with vehicle control. Next steps include evaluating the pharmacokinetics and toxicity of Pfizer Inc.'s conjugates and comparing their effect with that of other PI3K/mTOR inhibitors in animal models.</p> <p>Exelixis Inc. and sanofi-aventis Group's XL765, a small molecule inhibitor of mTOR and PI3K, is in Phase I/II testing to treat brain cancer and non-small cell lung cancer (NSCLC) and in Phase I testing to treat solid tumors.</p> <p>Rapamune sirolimus, an mTOR inhibitor from Pfizer, is approved to prevent organ rejection in renal transplantation.</p> <p>At least two other companies have compounds that inhibit both mTOR and PI3K in Phase I or earlier to treat cancer.</p> <p>SciBX 2(48); doi:10.1038/scibx.2009.1757 Published online Dec. 17, 2009</p>	Patented; unavailable for licensing	<p>Ayral-Kaloustian, S. <i>et al. J. Med. Chem.</i>; published online Nov. 23, 2009; doi:10.1021/jm901427g</p> <p>Contact: Semiramis Ayral-Kaloustian, Wyeth Research, Pearl River, N.Y. e-mail: Ayralks@wyeth.com</p>