This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Renal cancer	Folliculin (FLCN; BHD); mammalian target of rapamycin (mTOR; FRAP; RAFT1)	<p>Studies in mice suggest that mTOR inhibitors could help treat Birt-Hogg-Dube syndrome, an inherited renal cancer caused by <i>Bhd</i> mutations. <i>Bhd</i> knockout mice developed kidney cysts and solid tumors similar to those seen in patients with Birt-Hogg-Dube syndrome. In kidney tumors from the knockout mice and in tissue samples from human patients with the syndrome, FLCN expression was lower and mTOR signaling was higher than that in wild-type mice and in healthy tissue samples. Next steps could include testing the effects of mTOR inhibitors on the <i>Bhd</i> knockout mice.</p> <p>Rapamune sirolimus, an mTOR inhibitor from Pfizer Inc., is approved to prevent organ rejection in renal transplantation.</p> <p>Novartis AG's oral mTOR inhibitor Certican/Afinitor everolimus is approved to prevent organ transplant rejection and renal cancer and is in clinical trials to treat a range of other cancers.</p> <p>At least five other companies have mTOR inhibitors in Phase II and Phase III testing to treat various cancers.</p> <p>SciBX 2(43); doi:10.1038/scibx.2009.1599 Published online Nov. 5, 2009</p>	Patent and licensing status unavailable	<p>Hasumi, Y. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 22, 2009; doi:10.1073/pnas.0908853106</p> <p>Contact: W. Marston Linehan, National Institutes of Health, Bethesda, Md. e-mail: wml@nih.gov</p>