This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Renal disease				
Polycystic kidney disease (PKD)	Histone deacetylase (HDAC)	<p>Studies in zebrafish and in mice suggest that HDAC inhibitors could help treat PKD. In a zebrafish model of PKD, both the pan-HDAC inhibitor trichostatin A (TSA) and the class I specific HDAC inhibitor valproic acid (VPA) lowered kidney cyst formation compared with vehicle. VPA also slowed kidney cyst progression in mice. Next steps include clinical trials of HDAC inhibitors to treat autosomal dominant PKD.</p> <p>Compounds in development for PKD include Otsuka Pharmaceutical Co. Ltd.'s Tolvaptan, a vasopressin 2 (V2) receptor antagonist that is in Phase II testing, and PLX5568, a Raf kinase inhibitor from Plexxikon Inc. and Roche that is in Phase I testing.</p> <p>HDAC inhibitors are marketed to treat cancer.</p> <p>SciBX 2(48); doi:10.1038/scibx.2009.1774 Published online Dec. 17, 2009</p>	Patent application filed by Yale University; available for licensing	<p>Cao, Y. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 30, 2009; doi:10.1073/pnas.0911987106</p> <p>Contact: Zhaoxia Sun, Yale University, New Haven, Conn. e-mail: zhaoxia.sun@yale.edu</p>