This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Pancreatic cancer	p21 protein (Cdc42/Rac)-activated kinase 4 (PAK4); RIO kinase 3 (yeast) (RIOK3)	<p>Studies in mice and in cell culture suggest that inhibiting PAK4 and RIOK3 expression may be useful for treating pancreatic ductal adenocarcinoma. In nude mice, injection of pancreatic ductal adenocarcinoma cells (8988T) transfected with RIOK3 small hairpin RNA led to significantly lower tumor weight compared with that seen using cells transfected with control GFP shRNA ($p=0.05$). In cultured 8988T cells, short interfering RNA knockdown of PAK4 decreased cell migration and invasiveness compared with what was seen in cells transfected with control GFP siRNA. Next steps include assessing the toxicity of systemic RIOK3 and PAK4 inhibition and validating their potential as therapeutic targets in additional human xenograft mouse models.</p> <p>SciBX 1(44); doi:10.1038/scibx.2008.1071 Published online Dec. 11, 2008</p>	Patent application filed for use in cancer; available for licensing from the Dana-Farber Cancer Institute Office of Research and Technology Ventures	<p>Kimmelman, A.C. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 24, 2008; doi:10.1073/pnas.0809966105 Contact: Ronald A. DePinho, Dana-Farber Cancer Institute and Harvard Medical School, Boston, Mass. e-mail: ron_depinho@dfci.harvard.edu</p>