

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Brain cancer	Src homology protein tyrosine phosphatase 2 (SHP-2; SHPTP2; PTPN11); platelet derived growth factor receptor A (PDGFRA; PDGFR2; CD140A)	<p>Studies in mice and in cell culture suggest that inhibiting <i>SHP-2</i> could help treat gliomas that overexpress <i>PDGFRA</i>. In a mouse model of glioma, activation of <i>Pdgfra</i> expression increased <i>Shp-2</i>-dependent tumorigenicity compared with that in controls expressing a nonfunctional mutant receptor. In tumorigenic mouse astrocytes and a human glioma cell line, using small hairpin RNA or small molecule inhibitors to block <i>SHP-2</i> signaling decreased <i>PDGFRA</i>-mediated growth compared with using control shRNA or vehicle. Next steps could include identifying and evaluating <i>SHP-2</i> inhibitors in animal models of <i>PDGFRA</i>-overexpressing cancers. IMC-3G3, a human IgG1 mAb targeting PDGFRA from Eli Lilly and Co., is in Phase II testing to treat ovarian cancer and solid tumors.</p> <p>SciBX 4(9); doi:10.1038/scibx.2011.246 Published online March 3, 2011</p>	Patent and licensing status unavailable	<p>Liu, K.-W. <i>et al. J. Clin. Invest.</i>; published online Feb. 14, 2011; doi:10.1172/JCI43690</p> <p>Contact: Bo Hu, University of Pittsburgh Cancer Institute, Pittsburgh, Pa. e-mail: hub@upmc.edu</p> <p>Contact: Shi-Yuan Cheng, same affiliation as above e-mail: chengs@upmc.edu</p>