This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Brain cancer	Epidermal growth factor receptor (EGFR); Janus kinase-2 (JAK-2); PTEN (MMAC1; TEP1)	<p><i>In vitro</i> and mouse studies suggest allosteric inhibition of JAK-2 could help treat glioblastoma multiforme (GBM). In <i>PTEN</i>-deficient glioblastoma cell lines with constitutively active EGFR, compared with normal neural progenitor cells and astrocytes, the small molecule G5-7 selectively decreased proliferation. <i>In vitro</i> assays revealed that G5-7 bound to and allosterically inhibited JAK-2. In subcutaneous and intracranial xenograft mouse models of GBM, G5-7 decreased tumor growth compared with vehicle. Next steps include elucidating G5-7's mechanism of action and optimizing the compound for clinical development.</p> <p>Incyte Corp. and Novartis AG market Jakafi ruxolitinib, a JAK-1 and JAK-2 inhibitor, to treat myeloproliferative disorder.</p> <p>At least nine companies have JAK-2 inhibitors in Phase III testing or earlier development for various indications.</p> <p>SciBX 6(34); doi:10.1038/scibx.2013.917 Published online Sept. 5, 2013</p>	Patented by Emory University; licensed to Advinus Therapeutics Ltd.	<p>He, K. <i>et al. Sci. Signal.</i>; published online July 9, 2013; doi:10.1126/scisignal.2003900</p> <p>Contact: Keqiang Ye, Emory University School of Medicine, Atlanta, Ga. e-mail: kye@emory.edu</p>