This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Various				
Myeloproliferative disorders; hematological malignancies	Janus kinase-2 (JAK-2)	<p><i>In vitro</i> and patient sample studies suggest modulating the kinase activity of the JAK homology 2 (JH2) domain of JAK-2 could help treat myeloproliferative disorders. <i>In vitro</i>, purified JH2 phosphorylated JAK-2 at two sites previously associated with repression of kinase activity. In stimulated platelets from myeloproliferative disorder patients carrying a mutation in JH2, phosphorylation was decreased at one of the repressive sites compared with that in healthy controls. Next steps include testing JH2 as a target in animal models and screening for modulators of JH2 activity.</p> <p>Ruxolitinib, an oral JAK-1 and JAK-2 inhibitor from Incyte Corp. and Novartis AG, is in Phase III testing to treat myeloproliferative disorders and in Phase II trials to treat relapsed and refractory leukemia.</p> <p>At least five other companies have compounds that inhibit JAK-2 in Phase II testing or earlier to treat myeloproliferative disorders.</p> <p>SciBX 4(33); doi:10.1038/scibx.2011.947 Published online Aug. 25, 2011</p>	Patent application filed; available for licensing	<p>Ungureanu, D. <i>et al. Nat. Struct. Mol. Biol.</i>; published online Aug. 14, 2011; doi:10.1038/nsmb.2099</p> <p>Contact: Olli Silvennoinen, University of Tampere, Tampere, Finland e-mail: olli.silvennoinen@uta.fi</p>