This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Various				
Leukemia; neurology	Janus kinase-3 (JAK-3)	<p>A study in cell culture and in mice suggests that JAK-3 inhibitors could help treat diseases caused by human T cell lymphotropic virus-1 (HTLV-1), including adult T cell leukemia and HTLV-1-associated myelopathy/tropical spastic paraparesis. In peripheral blood mononuclear cells (PBMCs) from patients with those two diseases, the JAK inhibitor tasocitinib (CP-690,550) decreased aberrant PBMC proliferation compared with no treatment. In a mouse model of T cell leukemia, tasocitinib increased survival compared with vehicle. Next steps include clinical trials of tasocitinib.</p> <p>Tasocitinib, an oral pan-JAK inhibitor from Pfizer Inc., is in Phase II/III testing for various autoimmune indications, dry eye and organ transplant rejection.</p> <p>VX-509, a JAK-3 inhibitor from Vertex Pharmaceuticals Inc., is in preclinical and Phase I/II testing for multiple autoimmune indications.</p> <p>SciBX 4(3); doi:10.1038/scibx.2011.83 Published online Jan. 20, 2011</p>	Patent status undisclosed; available for licensing	<p>Ju, W. <i>et al. Blood</i>; published online Nov. 24, 2010; doi:10.1182/blood-2010-09-305425</p> <p>Contact: Thomas A. Waldmann, National Institutes of Health, Bethesda, Md. e-mail: tawald@helix.nih.gov</p>