This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Hematology				
Immunodeficiency	Bruton's tyrosine kinase (BTK)	<p><i>In vitro</i> and mouse studies suggest that B cell-targeted gene therapy could help treat X-linked agammaglobulinemia (XLA), a disease caused by a mutation in <i>BTK</i> that disrupts B cell maturation and immunoglobulin levels, putting patients at risk of infection. In transgenic mice lacking <i>Btk</i>, transplantation of stem cells expressing the kinase significantly increased mature B cell responses and B cell antigen receptor signaling. Next steps could include improving the efficacy of the approach and further testing in animal models.</p> <p>Avila Therapeutics Inc.'s AVL-101, a BTK inhibitor, is in preclinical testing for B cell lymphoma. Pharmacyclics Inc. has BTK inhibitors in clinical and preclinical testing for cancers and rheumatoid arthritis (RA).</p> <p>SciBX 3(6); doi:10.1038/scibx.2010.186 Published online Feb. 11, 2010</p>	Patent and licensing status unavailable	<p>Kerns, H. <i>et al. Blood</i>; published online Jan. 21, 2010; doi:10.1182/blood-2009-09-241869 Contact: David J. Rawlings, University of Washington School of Medicine, Seattle, Wash. e-mail: drawling@u.washington.edu</p>