This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Hematology				
Sickle cell disease	Adenosine; adenosine deaminase (ADA); adenosine A _{2B} receptor (ADORA _{2B})	<p><i>In vitro</i> and mouse studies suggest that increasing ADA activity or blocking ADORA_{2B} could help treat sickle cell disease. In the blood of sickle cell mice and patients, exogenous ADA or an ADORA_{2B} antagonist decreased hypoxia-induced sickling of red blood cells compared with no treatment. Also in the sickle cell mice, ADA or an ADORA_{2B} antagonist reduced hemolysis and organ damage compared with no treatment. Next steps include ongoing collaborations with undisclosed drug companies to test ADORA_{2B} antagonists in the clinic to treat sickle cell disease.</p> <p>ALT844, an ADORA_{2B} antagonist from Clinical Data Inc., is in preclinical testing to treat diabetes and asthma.</p> <p>SciBX 4(2); doi:10.1038/scibx.2011.45 Published online Jan. 13, 2011</p>	Patent application filed by The University of Texas Health Science Center at Houston; available for licensing or partnering	<p>Zhang, Y. <i>et al. Nat. Med.</i>; published online Dec. 19, 2010; doi:10.1038/nm.2280</p> <p>Contact: Yang Xia, The University of Texas Health Science Center at Houston, Houston, Texas e-mail: yang.xia@uth.tmc.edu</p>