This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Hematology				
Leukocyte adhesion deficiency III (LAD-III)	Fermitin family homolog 3 (FERMT3; Kindlin-3)	<p>Three studies suggest that increasing Kindlin-3 activity could help treat LAD-III, a rare autosomal recessive syndrome characterized by severe bleeding and frequent infections. In two separate studies, loss of function mutations in the <i>Kindlin-3</i> gene were identified in LAD-III patients. Also in LAD-III patients, transfection with lymphocytes containing Kindlin-3 cDNA restored hematopoietic cell function and alleviated all major symptoms of the disease. Another study showed that Kindlin-3 is essential to activate the β_1, β_2 and β_3 integrin classes. In mice, kindlin-3 deficiency led to defective leukocyte adhesion and function, causing a phenotype similar to that of LAD-III patients. Next steps include further investigation of the molecular mechanisms of Kindlin-integrin cooperation to design compounds to treat LAD-III.</p> <p>SciBX 2(9); doi:10.1038/scibx.2009.360 Published online March 5, 2009</p>	Unpatented; unlicensed	<p>Malinin, N. <i>et al. Nat. Med.</i>; published online Feb. 22, 2009; doi:10.1038/nm.1917 Contact: Tatiana V. Byzova, Cleveland Clinic, Cleveland, Ohio e-mail: byzovat@ccf.org</p> <p>Moser, M. <i>et al. Nat. Med.</i>; published online Feb. 22, 2009; doi:10.1038/nm.1921 Contact: Reinhard Fässler, Max Planck Institute of Biochemistry, Martinsried, Germany e-mail: faessler@biochem.mpg.de</p> <p>Svensson, L. <i>et al. Nat. Med.</i>; published online Feb. 22, 2009; doi:10.1038/nm.1931 Contact: Nancy Hogg, Cancer Research UK, London, U.K. e-mail: nancy.hogg@cancer.org.uk</p>