This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Osteoporosis	Interferon regulatory factor 8 (IRF8)	<p>Studies in mice and in cell culture suggest that increasing IRF8 expression could help treat osteoporosis. <i>Irf8</i>-deficient mice developed severe osteoporosis and had lower bone volume and thickness than wild-type controls. Osteoclast precursor cells from <i>Irf8</i>-deficient mice had a higher rate of differentiation into osteoclasts, which are responsible for bone resorption, than cells from wild-type controls. <i>Irf8</i> overexpression prevented the precursors from differentiating into osteoclasts. Next steps include developing tissue-specific gene therapy approaches to modulate IRF8 expression.</p> <p>SciBX 2(35); doi:10.1038/scibx.2009.1351 Published online Sept. 10, 2009</p>	Work unpatented; unavailable for licensing	<p>Zhao, B. <i>et al. Nat. Med.</i>; published online Aug. 30, 2009; doi:10.1038/nm.2007 Contact: Masamichi Takami, School of Dentistry, Showa University, Shinagawa, Tokyo, Japan e-mail: takami@dent.showa-u.ac.jp</p>