This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Bone repair	Not applicable	<p><i>In vitro</i> and mouse studies suggest depleting terminally differentiated CD8⁺ effector memory T cells could help prevent delayed fracture healing. In patients with delayed fracture healing, peripheral blood and fracture hematoma samples showed higher levels of terminally differentiated CD8⁺ effector memory T cells than samples from patients with normal fracture healing. In an osteogenic differentiation assay, cytokines produced by these CD8⁺ T cells decreased osteogenic differentiation and bone marrow mesenchymal stem cell viability compared with no treatment. In a mouse model for bone fracture, depletion of these CD8⁺ T cells improved fracture healing. Next steps include validation of these CD8⁺ T cells as a biomarker for delayed fracture healing.</p> <p>SciBX 6(13); doi:10.1038/scibx.2013.315 Published online April 4, 2013</p>	Patent application filed for diagnostic and therapeutic applications; available for licensing	<p>Reinke, S. <i>et al. Sci. Transl. Med.</i>; published online March 20, 2013; doi:10.1126/scitranslmed.3004754 Contact: Hans-Dieter Volk, Charité–University Hospital Berlin, Berlin, Germany e-mail: hans-dieter.volk@charite.de</p>