This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Osteoporosis	Peroxisome proliferation-activated receptor- δ (PPAR δ ; PPAR δ)	<p><i>In vitro</i> and mouse studies suggest activating PPARδ could help treat osteoporosis. In cocultured osteoblasts and osteoclasts, pharmacological activation of PPARδ with GW501516 increased osteoblast differentiation and decreased osteoclastogenesis compared with no activation. In a mouse model for postmenopausal osteoporosis, GW501516 restored bone turnover and increased bone density to normal levels compared with vehicle. Next steps include studies to determine if a PPARδ agonist could be used to treat osteoporosis in patients.</p> <p>At least five companies have PPARδ agonists in clinical and preclinical testing to treat endocrine and metabolic conditions.</p> <p>GlaxoSmithKline plc discontinued development of GW501516 after finding the molecule induced tumors in rodents. The compound had completed a Phase II trial in patients with dyslipidemia.</p> <p>SciBX 6(16); doi:10.1038/scibx.2013.392 Published online April 25, 2013</p>	Findings unpatented; available for licensing	<p>Scholtyssek, C. <i>et al. Nat. Med.</i>; published online March 31, 2013; doi:10.1038/nm.3146</p> <p>Contact: Gerhard Krönke, University of Erlangen-Nuremberg, Erlangen, Germany e-mail: gerhard.kroenke@uk-erlangen.de</p>