This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Osteoporosis	NF- κ B; FOS-like antigen 1 (FOSL1; FRA1)	<p>Studies in cell culture and in mice suggest that inhibiting NF-κB could be useful for treating osteoporosis and other inflammatory bone diseases. In mouse osteoblasts, inhibition of NF-κB increased expression of Fra1, a transcription factor involved in bone matrix formation. In transgenic mice engineered to inhibit NF-κB specifically in osteoblasts, trabecular bone mass and bone mineral density were higher than in wild-type mice. In mice with ovariectomy-induced osteoporosis, inhibition of NF-κB in osteoblasts prevented osteoporotic bone loss and increased Fra1 expression compared with control mice. Next steps include screening for inhibitors of NF-κB. At least seven companies have NF-κB inhibitors in various stages of development for various indications.</p> <p>SciBX 2(20); doi:10.1038/scibx.2009.834 Published online May 21, 2009</p>	Unpatented; unlicensed	<p>Chang, J. <i>et al. Nat. Med.</i>; published online May 17, 2009; doi:10.1038/nm.1954</p> <p>Contact: Cun-Yu Wang, University of California, Los Angeles, Calif. e-mail: cwang@dentistry.ucla.edu</p>