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THE DISTILLERY

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Osteoporosis	*Pleckstrin homology domain containing family O member 1* (*PLEKHO1*; *CKIP-1*)	Rat studies suggest bone formation–targeting liposomes loaded with *PLEKHO1* small interfering RNA could help treat osteoporosis. In normal rats, the peptide $(Asp\text{-}Ser\text{-}Ser)_6$ homed to bone formation surfaces but not to bone resorption surfaces. In rat models of osteoporosis, liposomes linked to the peptide and loaded with siRNA against *Plekho1* increased bone mineral density compared with *Plekho1* siRNA–loaded liposomes lacking the peptide or nonliposomal *Plekho1* siRNA. Future studies could include testing the targeted *Plekho1* siRNA–loaded liposomes in animal models of periodontitis and other bone loss indications. *Plekho1* encodes a bone formation–inhibiting protein. *SciBX* 5(6); doi:10.1038/scibx.2012.157 Published online Feb. 9, 2012	Patent and licensing status unavailable	Zhang, G. *et al. Nat. Med.*; published online Jan. 29, 2012; doi:10.1038/nm.2617 **Contact:** Ling Qin, The Chinese University of Hong Kong, Hong Kong, China e-mail: lingqin@cuhk.edu.hk **Contact:** Ge Zhang, same affiliation as above e-mail: zhangge@ort.cuhk.edu.hk **Contact:** Lingqiang Zhang, Beijing Institute of Radiation Medicine, Beijing, China e-mail: zhanglq@nic.bmi.ac.cn