This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal Disease				
Duchenne muscular dystrophy (DMD)	Matrix metalloproteinase 9 (MMP9); placental growth factor (P1GF)	Studies in mice suggest that fibroblast transplants expressing P1GF and MMP9 may help improve delivery of DMD therapeutics. In advanced DMD, sclerosis and reduced microvessel density impair the systemic delivery of gene and cell therapies to diseased muscle. In aged dystrophic mice, intramuscular transplant of tendon fibroblasts expressing both P1GF and MMP9 roughly doubled muscle fiber densities compared with transplants that expressed neither or only one of the proteins. In the same mice, muscles that received tendon fibroblasts expressing both proteins also had a higher percentage of small regenerating fibers and a lower percentage of large degenerating fibers compared with untreated muscles. Next steps include modifying cells to express an inducible myogenic factor and evaluating other cell types as protein delivery vehicles.	Not patented; available for licensing through San Raffaele Technology Transfer Office	Gargioli, C., *et al. Nat. Med.;* published online July 27, 2008; doi:10.1038/nm.1852 **Contact:** Giulio Cossu, H. San Raffaele, Milan, Italy e-mail: cossu.giulio@hsr.it **Contact:** Lucia Faccio, Science Park Raf SpA, Milan, Italy e-mail: lucia.faccio@SPR.it

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