This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
In vitro condensation of human mesenchymal stem cells (MSCs) to aid *in vivo* formation of functional cartilage	*In vitro* studies suggest using human MSCs to form structures called condensed mesenchymal cell bodies (CMBs) can generate cartilage that could help promote joint regeneration and bone repair. *In vitro*, 2.5×10^5 human MSCs supplemented with transforming growth factor-β3 (TGFB3) formed CMBs within a few days. CMBs layered onto a porous, decellularized bone matrix developed into cartilage that had normal stiffness in five weeks. In an *in vitro* model of cartilage defect, the fused CMBs filled the defect and integrated with surrounding tissue. Next steps include using CMBs in animal models to generate cartilage and bone grafts and initiating pre-IND discussions with the FDA.	Covered by pending and filed patents; available for licensing	Bhumiratana, S. *et al. Proc. Natl. Acad. Sci. USA*; published online April 28, 2014; doi:10.1073/pnas.1324050111 **Contact:** Gordana Vunjak-Novakovic, Columbia University, New York, N.Y. e-mail: gv2131@columbia.edu

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