This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Poly(β -amino esters) (PBAE) nanoparticles for gene delivery to human stem cells	PBAE nanoparticles may be safe and efficient gene delivery vectors for improving the protein levels of human stem cell-based therapies. In a proof-of-concept study, nanoparticle-mediated delivery of the <i>VEGF</i> gene to human mesenchymal stem cells (hMSCs) led to VEGF levels higher than those in untransfected controls ($p < 0.05$). In a mouse model of hind limb ischemia, engraftment of nanoparticle-transfected hMSCs that expressed VEGF resulted in a higher rate of limb salvage than engraftment of untransfected cells. Next steps include using the nanoparticles to modulate the effect of additional stem cell-based therapies.	Materials and PBAE nanoparticles covered by multiple issued and pending patents; some patents available for licensing	Yang, F. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online Oct. 5, 2009; doi:10.1073/pnas.0905432106 Contact: Daniel Anderson, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: dgander@mit.edu
	SciBX 2(41); doi:10.1038/scibx.2009.1552 Published online Oct. 22, 2009		