This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Hydrogel delivery system for controlled delivery of bupivacaine	<p>A hydrogel delivery system could enable controlled delivery of the generic anesthetic bupivacaine with few side effects. The delivery system uses chitosan-coated poly(lactic-co-glycolic acid) (PLGA) microparticles loaded with bupivacaine and embedded within pluronic F-127, a thermoresponsive gel. <i>In vitro</i>, the hydrogel-embedded microparticles released their bupivacaine cargo in a controlled manner over seven days. <i>In vitro</i>, the chitosan-coated microparticles lacked cytotoxicity against bone marrow mesenchymal stem cells and caused less proinflammatory cytokine release from macrophages than uncoated PLGA microparticles. Next steps include GMP manufacturing of the hydrogel delivery system and evaluation in large-animal models of pain.</p> <p>SciBX 7(41); doi:10.1038/scibx.2014.1216 Published online Oct. 23, 2014</p>	Patent application filed; unavailable for licensing	<p>Taraballi, F. <i>et al. J. Pharm. Sci.</i>; published online Sept. 29, 2014; doi:10.1002/jps.24190</p> <p>Contact: Ennio Tasciotti, Houston Methodist Research Institute, Houston, Texas e-mail: etasciotti@houstonmethodist.org</p>