This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Microfluidic system that uniformly encapsulates islets of Langerhans to treat type 1 diabetes	<p>A microfluidic platform that generates uniformly encapsulated islets of Langerhans could be used to help treat type 1 diabetes. The microfluidic platform enables the coating of individual islets of Langerhans with a thin, uniform layer of polyethylene glycol–alginate hydrogel. <i>In vitro</i>, the coated islets maintained their functionality as measured by glucose-stimulated insulin release, whereas uncoated islets gradually lost this functionality. In a mouse model of diabetes, injection of the coated islets under the kidney capsule restored normal glucose levels for at least 112 days and showed minimal fibrosis and macrophage infiltration, suggesting good biocompatibility. Next steps include evaluating whether the coating provides efficient isolation against immune rejection and autoimmune responses.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.910 Published online Aug. 7, 2014</p>	Covered by filed and pending patents; licensed to Converge Biotech Inc.	<p>Tomei, A.A. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 30, 2014; doi:10.1073/pnas.1402216111 Contact: Alice A. Tomei, University of Miami Miller School of Medicine, Miami, Fla. e-mail: atomei@med.miami.edu</p>