This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Apolipoprotein E (APOE)-derived peptide for drug delivery across the blood brain barrier (BBB)	<p><i>In vitro</i> and mouse studies suggest an APOE-derived peptide could help deliver therapeutics across the BBB. <i>In vitro</i> assays identified two peptides derived from APOE that bound low-density lipoprotein-related protein 1 α-2-macroglobulin receptor (LRP1; CD91), a receptor on the BBB surface, and underwent transcytosis. In a mouse model for the lysosomal storage disease mucopolysaccharidosis I (MPS I), which involves loss of α-L-iduronidase (IDUA) function in the CNS, delivery of transgenes encoding a fusion between the APOE-derived peptide and IDUA increased levels of the enzyme in the brain compared with delivery of transgenes encoding a control peptide-IDUA fusion. Next steps include testing the effects on neurological deficits in additional animal models of MPS I. Angiochem Inc. has LRP1-binding peptide-enzyme fusions in preclinical development to treat lysosomal storage disorders.</p> <p>SciBX 6(8); doi:10.1038/scibx.2013.204 Published online Feb. 28, 2013</p>	Patent application filed; available for licensing	<p>Wang, D. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Feb. 4, 2013; doi:10.1073/pnas.1222742110 Contact: Dao Pan, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio e-mail: dao.pan@cchmc.org Contact: Roscoe O. Brady, National Institutes of Health, Bethesda, Md. e-mail: bradyr@ninds.nih.gov</p>