This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Engineered, zinc finger domain-containing recombinases for site-specific delivery of therapeutic genes	<p>An engineered recombinase could enable nontoxic, site-specific delivery of therapeutic genes to the human genome. Recombinases containing zinc finger, DNA-binding domains form heterodimers capable of site-specific gene delivery but also form homodimers that can modify off-target genes. In a human cell line, a recombinase containing an engineered variant of the zinc finger domain exhibited over 500-fold less homodimerization than a recombinase containing the unmodified domain. In the cell line, the engineered recombinase was used to deliver human <i>factor IX</i> or <i>α-galactosidase A</i> into the genome with no signs of off-target delivery. Future studies could include developing viral vectors for cell- or tissue-targeted <i>in vivo</i> delivery of the engineered recombinase.</p> <p>SciBX 7(13); doi:10.1038/scibx.2014.383 Published online April 3, 2014</p>	Patent and licensing status unavailable	<p>Gaj, T. <i>et al. J. Am. Chem. Soc.</i>; published online March 10, 2014; doi:10.1021/ja4130059 Contact: Carlos F. Barbas III, The Scripps Research Institute, La Jolla, Calif. e-mail: carlos@scripps.edu</p>