This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Enhancing specificity of RNA-guided clustered, regularly interspaced short palindromic repeats (CRISPR)-based genome editing with paired guide RNAs	<p>Enhancing the specificity of CRISPR-based genome editing systems could improve its use in therapeutic applications. CRISPR systems use small guide RNAs that pair with a target DNA sequence and the CRISPR-associated protein 9 (Cas9) to excise target DNA. To improve specificity, a system was designed that uses a Cas9 mutant enzyme plus a pair of guide RNAs to excise a targeted DNA sequence. In cell lines, this CRISPR-based editing system decreased off-target DNA excision by 50- to 1,000-fold compared with systems that use single guide RNAs. Next steps include whole-genome sequencing studies to better characterize the specificity of the Cas9 mutant and further improving the efficiency of the system.</p> <p>SciBX 6(35); doi:10.1038/scibx.2013.978 Published online Sept. 12, 2013</p>	Patent application filed; available for licensing from the Broad Institute of MIT and Harvard Office of Strategic Alliances and Partnering	<p>Ran, F.A. <i>et al. Cell</i>; published online Aug. 29, 2013; doi:10.1016/j.cell.2013.08.021 Contact: Feng Zhang, Broad Institute of MIT and Harvard, Cambridge, Mass. e-mail: zhang@broadinstitute.org</p>