This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Transcription activator-like effector nuclease (TALEN)-mediated genome editing to generate genetically modified monkeys	<p>Primate studies suggest TALENs could be used to generate genetically modified monkeys to model disease. In single-cell rhesus or cynomolgus monkey embryos, microinjection of three <i>methyl CpG binding protein 2</i> (<i>MECP2</i>; <i>RTT</i>)-targeting TALEN plasmids plus a <i>RAD51 homolog</i> (<i>RAD51</i>) plasmid resulted in eight-cell-stage embryos with <i>MECP2</i> disruptions. Embryo transfer to female monkeys produced three aborted male fetuses and one live female infant. Sequencing analysis of tissues from the TALEN monkeys showed that the TALEN fetuses and infant had multiple point mutations across <i>MECP2</i> and no off-target mutational effects. Next steps include using the system to generate monkey models for neurological and metabolic diseases.</p> <p>SciBX 7(10); doi:10.1038/scibx.2014.296 Published online March 13, 2014</p>	Unpatented; licensing status not applicable	<p>Liu, H. <i>et al. Cell Stem Cell</i>; published online Feb. 13, 2014; doi:10.1016/j.stem.2014.01.018 Contact: Weizhi Ji, Yunnan Key Laboratory of Primate Biomedical Research, Kunming, China e-mail: wji@kbimed.com Contact: Yi Eve Sun, same affiliation as above e-mail: ysun@mednet.ucla.edu Contact: Siguang Li, Tongji University School of Medicine, Shanghai, China e-mail: siguangli@163.com</p>