

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Clustered, regularly interspaced short palindromic repeats (CRISPR) genome editing to produce genetically modified monkeys	<p>Primate studies suggest CRISPR could be used to develop genetically modified monkeys that model disease. In single-cell cynomolgus monkey embryos, injection of a pool of five single guide RNAs (sgRNAs) targeting peroxisome proliferation-activated receptor-γ (PPARG; PPARγ), recombinant activating gene 1 (RAG1) and nuclear receptor subfamily 0 group B member 1 (NR0B1) plus CRISPR-associated 9 (Cas9) mRNA resulted in embryos with simultaneous disruptions in two target genes. In infant monkeys born after embryos were transferred to female monkeys, umbilical cord, placenta and ear puncture tissues from twin monkeys had the same genetic modifications in <i>Pparγ</i> and <i>Rag1</i>. Next steps include developing germline-modified monkeys using the strategy.</p> <p>SciBX 7(9); doi:10.1038/scibx.2014.268 Published online March 6, 2014</p>	Findings unpatented; unavailable for licensing	<p>Niu, Y. <i>et al. Cell</i>; published online Jan. 30, 2014; doi:10.1016/j.cell.2014.01.027 Contact: Jiahao Sha, Nanjing Medical University, Nanjing, China e-mail: shajh@njmu.edu.cn Contact: Xingxu Huang, Model Animal Research Center of Nanjing University, Nanjing, China e-mail: xingxuhuang@mail.nju.edu.cn Contact: Weizhi Ji, Yunnan Key Laboratory of Primate Biomedical Research, Kunming, China e-mail: wji@kbimed.com</p>