This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Ferret and pig models of cystic fibrosis (CF) generated by fibroblast-based somatic cell nuclear transfer (SCNT) cloning	Cloned ferrets and pigs lacking functional *CFTR* genes could model human CF phenotypes more accurately than mice and thus be useful for studying disease pathology and identifying potential therapeutics. *CFTR* encodes an epithelial chloride channel that is defective in CF, leading to lung and pancreatic dysfunction. Ferret and pig fibroblasts were targeted with *CFTR*-disrupting recombinant adeno-associated virus vectors, followed by the transfer of transgene-positive nuclei into enucleated oocytes. The ferret studies used *CFTR* exon 10, whereas the pig studies used *CFTR* with the mutation ΔF508. The resulting embryos were implanted into surrogate mothers, yielding heterozygous transgenic animals that grew to adulthood. Next steps include breeding homozygous mutants of each animal and characterizing their lung and pancreatic functions to determine whether these animals are more suitable disease models than *CFTR* knockout mice, which do not display CF-like pathology.	Patent application filed for the genetically modified animals; available for licensing	Sun, X. *et al. J. Clin. Invest.*; published online March 6, 2008; doi:10.1172/JCI34599 **Contact:** John F. Engelhardt, University of Iowa Carver College of Medicine, Iowa City, Iowa e-mail: john-engelhardt@uiowa.edu Rogers, C.S. *et al. J. Clin. Invest.*; published online March 6, 2008; doi:10.1172/JCI34773 **Contact:** Michael J. Welsh, University of Iowa Carver College of Medicine, Iowa City, Iowa e-mail: michael-welsh@uiowa.edu **Contact:** Randall S. Prather, University of Missouri, Columbia, Mo. e-mail: pratherr@missouri.edu