

Cystic Fibrosis Sheep | CLATS

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Cystic Fibrosis Sheep



LAGEC CFTR^{-/-}

CFTR^{-/-} and CFTR^{-/+} sheep

Mono and Bi-allelic knockout sheep model of Cystic Fibrosis disease. Cystic Fibrosis (CF) is a human autosomal genetic disease caused by mutations in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene, a Cl⁻ anion channel protein in epithelial cells. The CFTR^{-/-} lambs display many features similar to CF-associated disease in human, including meconium ileus, pancreatic fibrosis, portal fibrosis and biliary hyperplasia, small gallbladder, and absence of the vas deferens.

(1) Fan, Z., Perisse, I. V., Cotton, C. U., et al. A sheep model of cystic fibrosis generated by CRISPR/Cas9 disruption of the CFTR gene. *JCI insight*, 3(19), 2018.

