**INTRODUCTION**

**OBJECTIVE**

To evaluate the feasibility of our therapeutic approach, we utilized APOC3 transgenic mice, which contain multiple copies of the human APOC3 (hAPOC3) gene and exhibit extremely high levels of circulating TGs.

**RESULTS**

**RESULTS (continued)**

**CONCLUSIONS**

1. **ARCUS-APOC3 gene disruption in hAPOC3 transgenic mice results in potent reduction in hAPOC3 mRNA expression, serum hAPOC3, and serum triglyceride levels.**
2. **LNP-administration of ARCUS was well tolerated and generates rapid and detectable phenotypic changes.**
3. Together, these data support the development of an LNP-administered ARCUS-APOC3 nuclease for the treatment of FCS.