

We are pleased to offer four new services to support the characterization and expansion of CRISPR-edited mice.

Keywords: Allele validation Off-Target analysis Random insertion analysis rapid colony expansion new services cryopreservation

Expand

1. **Allele validation in the N1 generation.** CRISPR mutations in the F0 generation can often be a problem to sort out. Thus, for new gene editing projects we now offer the option of having the VGER breed and genotype N1 generation offspring for you. This allows a repeat validation of the induced mutation in a heterozygous animal.
2. **Off-Target Analysis:** CRISPR has the potential to generate off target mutations. If this is a concern for you, we can design and perform PCR assays to detect editing at predicted off-target sites.
3. **Random Insertion Analysis:** DNA donor sequences, particularly longer ones, can insert randomly in the genome. We can design and perform assays to detect random insertions and use this information to help you decide which founders to breed.
4. **Rapid Colony Expansion and Cryopreservation.** It can be very time consuming to establish a colony of experimental animals from a single founder. If time is critical for you, we can harvest sperm from N1 heterozygous mice and use it to fertilize multiple isogenic wild type embryos. Aggressive breeding of the resulting heterozygous mice can accelerate experimental analysis by saving two or more generations of natural mating.

To initiate a genome editing project, contact Leesa Sampson at leesa.sampson@vanderbilt.edu.