



## Rodent Model Generation

Pronuclear Injection

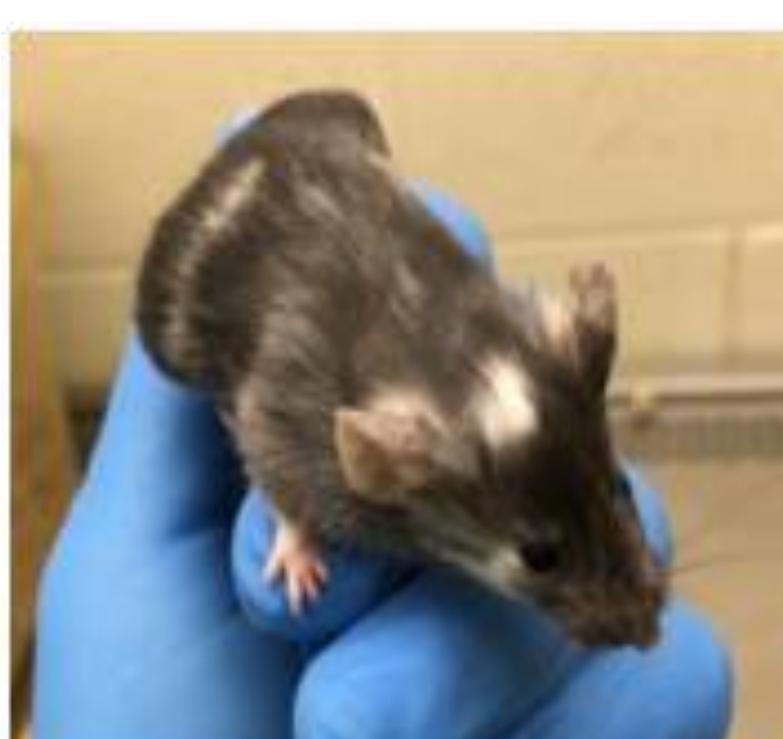
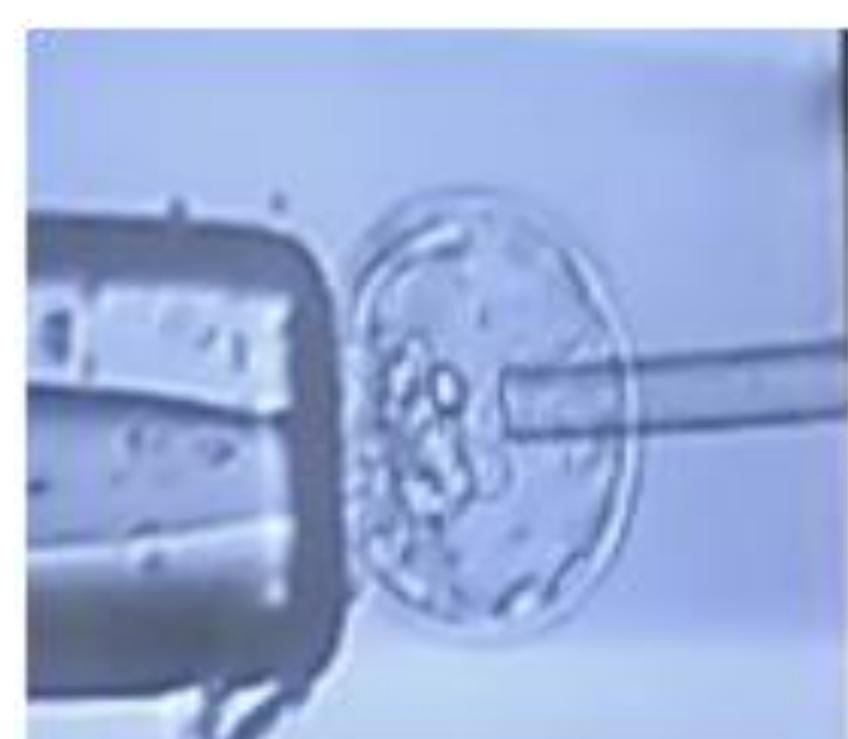
Electroporation

### Using CRISPR/Cas9:

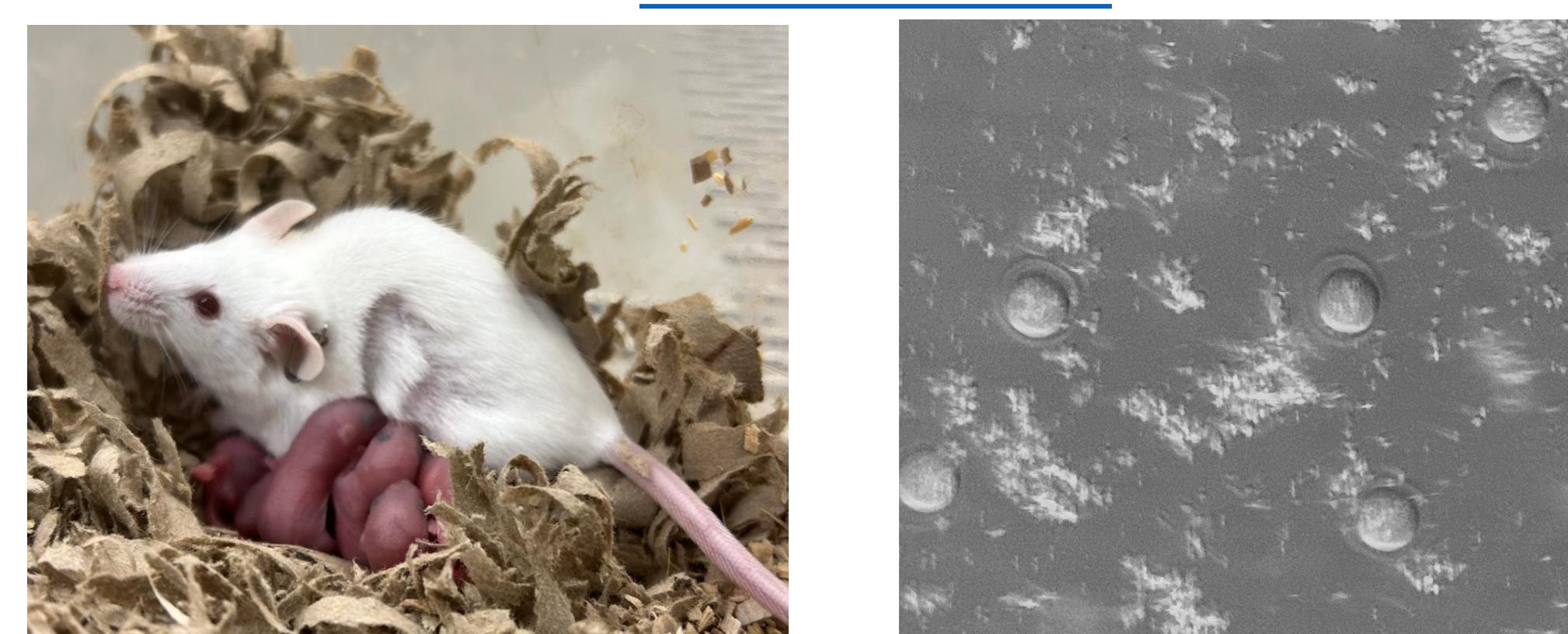
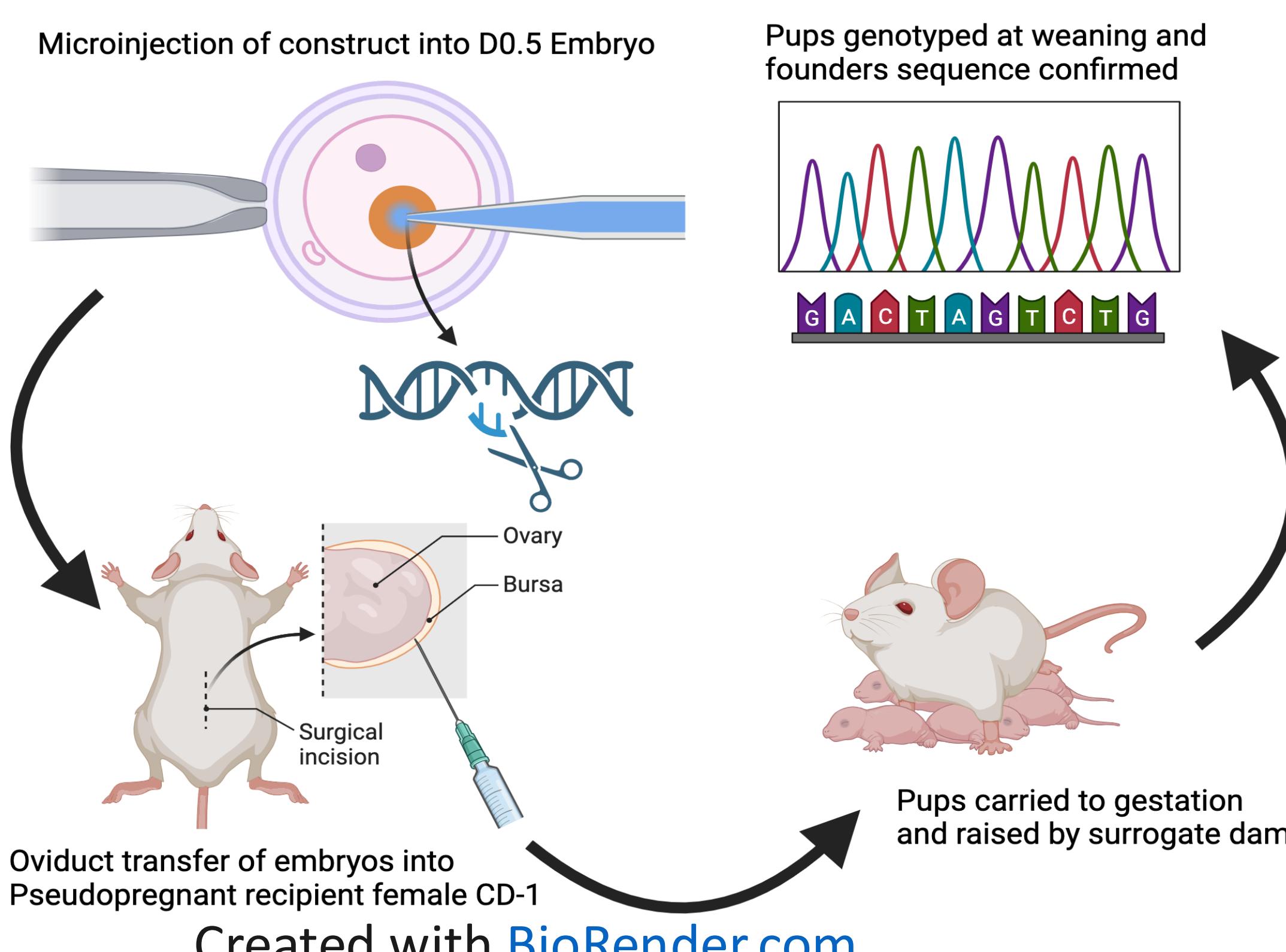
- Knockout / indels
- Large genomic deletions
- Hypomorphic alleles
- Patient variants
- Conditional alleles
- ROSA26 insertions
- Reporter tags

### Conventional Transgenics:

- Reporters
- Overexpression vectors



## Generation of a Mouse Model



Project Type	Details	Internal Price
CRISPR/Cas9-mediated Model Generation	Design and testing of gRNA and repair template, mouse/rat generation, 150 fertilized oocytes injected	\$10,000 (mouse) \$18,000 (rat) (plus cost of repair template)
Transgenic Model Generation	Pronuclear injection of linearized DNA, mouse/rat generation, 150 fertilized oocytes injected	\$10,000 (mouse) \$18,000 (rat) (plus cost of DNA generation)
ES Cell Microinjection (mouse)	Inject ≥ 40 blastocysts with 1-2 ES clones	\$10,000
Sperm cryopreservation (mouse)	1-2 males per line. Motility of thawed sperm tested	\$1,100
In vitro fertilization (IVF)	Includes transfer of two-cell embryos to up to six recipient females	\$4,000
Embryo Cryopreservation	Up to 10 females superovulated per line.	\$2,500 (mouse) \$5,000 (rat)
Rederivation	Transfer of fertilized oocytes to up to six recipient females	\$2,500 (mouse) \$5,000 (rat)
Sperm/Embryo Storage	Annual fee first 3 lines	\$50
Gene Targeting (ES Cells)	Annual fee per 3 additional lines	\$25/3 lines
Human iPSC/ES Genome Edit	C57BL/6 ES cells (2x96 well plates) No screening (DNA plates to PI)	\$10,000
	With PCR screening	\$12,000
Human iPSC/ES Genome Edit	Electroporation and single cell clone isolation. PCR based identification of positive clones	\$10,000 (plus cost to synthesize targeting vector)

### Contact the Director

### For Consultation:

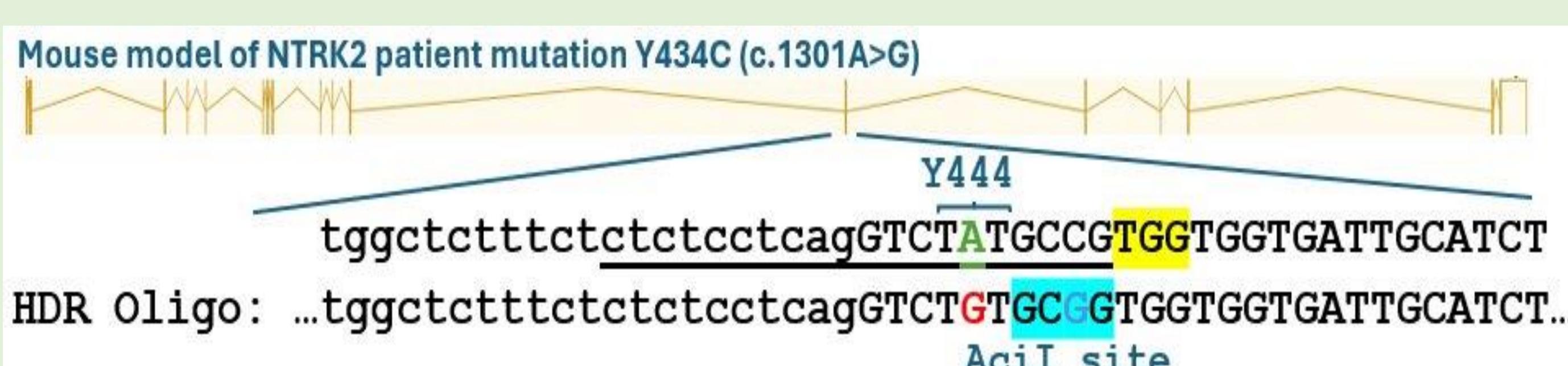
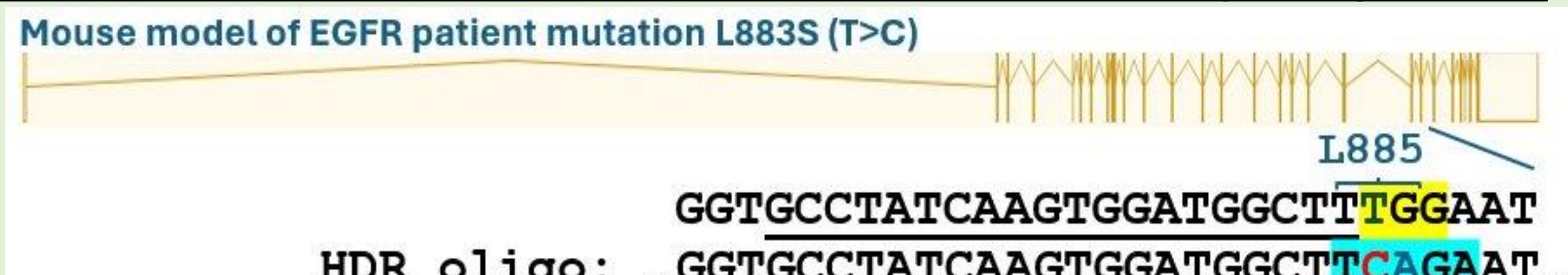
Dr. John M. Parant,  
jparant@uab.edu



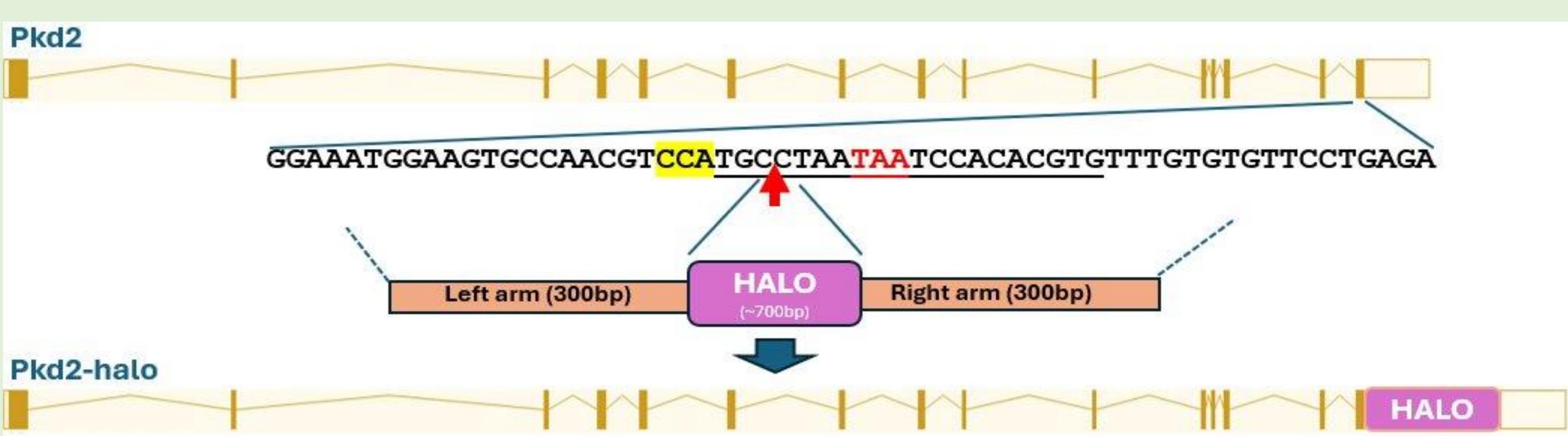
## Assisted Reproduction

- Mouse embryo/sperm cryopreservation
- Rat embryo cryopreservation
- In vitro fertilization
- Pathogen-free rederivation
- Transfer of cryopreserved embryos

## Recent nucleotide alterations projects



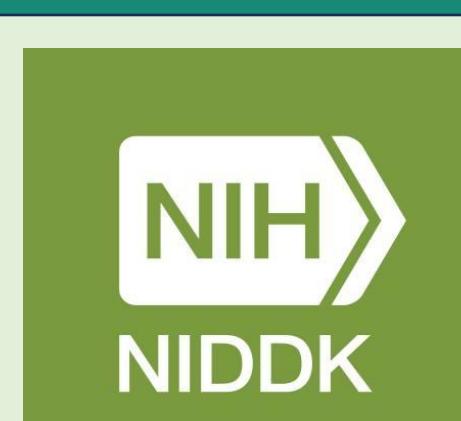
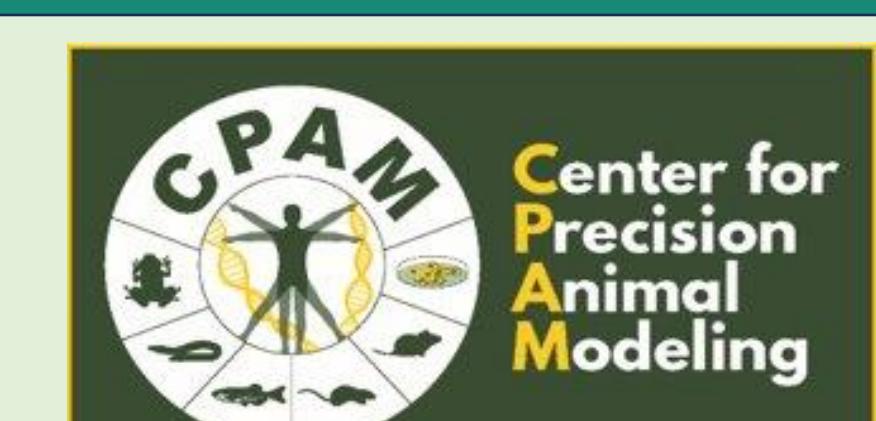
## Recent Knock-in project



## NIH Support

- O'Neal Comprehensive Cancer Center
- UAB Center for Precision Animal Modeling
- UAB Childhood Cystic Kidney Disease Core Center
- UAB Diabetes Center

**O'NEAL** COMPREHENSIVE  
CANCER CENTER



**UAB** Diabetes  
Research Center