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<https://www.uab.edu/cores/ircp/tgem>

Rodent Model Generation

Pronuclear Injection
Electroporation

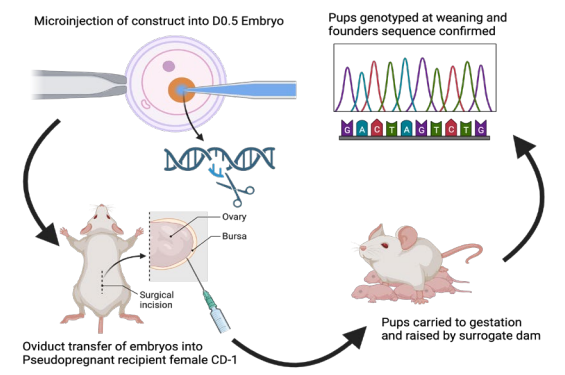
Using CRISPR/Cas9:

- 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



Created with [BioRender.com](https://www.biorender.com)

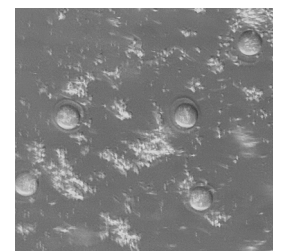
Project Type	Details	Internal Price
CRISPR/Cas9-mediated Model Generation	Design and testing of gRNA and repair template, mouse/rat generation, 150 fertilized oocytes injected	\$8,000 (mouse) \$15,000 (rat) (plus cost of repair template)
Transgenic Model Generation	Pronuclear injection of linearized DNA, mouse/rat generation, 150 fertilized oocytes injected	\$8,000 (mouse) \$15,000 (rat) (plus cost of DNA generation)
ES Cell Microinjection (mouse)	Inject ≥ 40 blastocysts with 1-2 ES clones	\$8,000
Sperm cryopreservation (mouse)	1-2 males per line. Motility of thawed sperm tested	\$900
In vitro fertilization (IVF)	Includes transfer of two-cell embryos to up to six recipient females	\$3,300
Embryo Cryopreservation	Up to 10 females superovulated per line.	\$2,000 (mouse) \$4,000 (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
	Annual fee per 3 additional lines	\$25/3 lines
Gene Targeting (ES Cells)	C57BL/6 ES cells (2x96 well plates) No screening (DNA plates to PI)	\$10,000
	With PCR screening	\$12,000

Contact the Director:
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Assisted Reproduction

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



NIH Support

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

