# Genetically Engineered Murine Model Core

### **About Us**

Established in 1993, the Genetically Engineered Murine Model (GEMM) Core at UVA provides useroriented service to efficiently produce and preserve genetically engineered mouse strains for animal model research for investigators at UVA and their collaborators outside UVA. In 2013, the GEMM quickly adopted CRISPR technology, and has expanded its utility for faster and cheaper mouse model creation ever since. The GEMM's mouse line cryopreservation and rederivation service made a significant impact to archive the animal resource for the research community during the pandemic and beyond. In addition, the GEMM provides letters of support for grant applications, and offers project consultation and design. The GEMM is engaged in educational activity to teach the state-of-art genetic and reproductive technologies.



# **Our Services**

- CRISPR genome editing
- Knockout and knock-in mouse production
- Targeted and random transgenics
- Mouse line cryopreservation (sperm or embryos
- Mouse line rederivation (IVF or embryo implantation)
- ES cell culture and expansion
- Project consultation and design



### Instrumentation

- NEPA21 type II super electroporator
- Primetech PMM4G piezo micro manipulator
- Eppendorf femtojet 4i electronic microinjector
- Leica DMIRB and DMIL inverted microscopes
- Leica MZ75 high performance stereomicroscopes
- Leitz micromanipulators
- Sutter P-87 micropipette puller
- De Fonbrune microforge
- Bio-Cool BCIV40A Controlled-Rate Freezer
- XYClone laser system
- BTX ECM630 Electroporator
- Eppendorf EP Gradient Mastercycler
- UVIdoc LCD Gel Documentation System
- Biosafety cabinets
- CO2 incubators

The GEMM core can help you develop genetically engineered mouse strains using **CRISPR** 

technology



Enhancing Research, Rigor and Reliability

#### **Our Team**

Wenhao Xu, PhD-Director Professor of Research in Microbiology, Immunology, and Cancer Biology Director

#### Daniel Grisby, PhD - Research Scientist





Blastocyst

# Contact

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Request services on: uva.corefacilities.org/account/login

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