Breeding Services

Core responsibilities

The service allows investigators to place orders for mice they will need for their study. TIGM will breed the mice and deliver them when they are needed as requested by the investigator. The breeding services provided by TIGM take place in the Research Core B. Animals may not enter the facility unless they are rederived from an existing colony or are shipped directly to the barrier from an approved vendor. TIGM can rederive mouse strains by embryo transfer or IVF (relevant service fees will apply). Rederivation is the most secure means for moving mouse strains from conventional facilities to specific pathogen-free facilities or as a solution to address disease outbreaks. All breeding, weaning, animal identification, colony management, record keeping, tissue and sample collection is performed by experienced TIGM technicians. To reduce any threat of biocontamination, only TIGM technicians and supervisors are allowed access to barrier housing rooms. All breeding services are provided on a per diem basis.

The following mouse breeding services are included in per diem charges:

Set up mating pairs
Maintenance of the breeding database
Timed matings
Copulation plug checks
Weaning
Tail snip collection for PCR
Animal identification
Antibiotic water administration
IP or SQ injections
Litter weight at weaning
Provide special diet if needed (must be irradiated)

All mice in the barrier are housed in sterile static micro-isolator mouse caging and changed under a hood using aseptic technique. Animal care staff wears PPE which includes hair bonnets, gloves, and dedicated clothing. All caging equipment is autoclaved and all feed is irradiated or autoclaved. Water is purified through reverse osmosis. Special diets and/or water treatment can be provided per investigator request (all diets must be irradiated).

The following strains are available at TIGM and can be used in matings or as embryo donors: CD1, FVB, C57BL/6J and C57BL/6N.

TIGM maintains breeding records using breeding colony management software which tracks stock/strain/line and heritage. Copies of the records can be provided upon request. Investigators may request breeding scheme strategy adjustments at any time by e-mailing or faxing (979-458-5559) requests to the Production Manager. Completed orders will be delivered directly to the investigator's regular animal holding room. Transfers between facilities on-campus (TAMU College Station) is provided free of charge by Comparative Medicine Program, shipments off campus need to be arranged by recipient investigators.

Tail snip samples are collected by TIGM technicians, as requested by the investigator, for genotype testing. Genotyping can either be performed by TIGM (one time genotyping setup fee will apply) or sent to an outside laboratory as instructed by investigator. Other tissue samples can be collected as requested by the investigator (mucosal swab or blood for example).

Individual animals are permanently identified by ear tags. Pups are weaned at 21 days of age, unless extended weaning is necessary to enhance survival rates. Animal weight at weaning can be measured and recorded if requested. If requested by the investigator, culling by gender or genotype can be provided to meet the needs of individual studies.

For questions or concerns please contact the breeding core via phone or fax: Phone: 979-458-5498 Fax: 979-458-5559

Due to the variability in fertility among mouse lines/strains, the core cannot not guarantee that a specific number of animals will be provided by a specific date .

Investigator Responsibilities

Step 1: Complete an Breeding Service Request form and consult with Andrei Golovko about desired breeding schema, quantities of mice required and additional services.

Step 2: Arrange for shipment of either 1) founder colony animals from approved vendor or 2) a minimum of 3 practiced stud males 3-6 months of age and 5-8 females that could be used as embryo donors, or 3) at least 2 straws with 20-25 frozen embryos per each and freeze/thaw protocol.