

## **Rederivation**

### Core Responsibilities

For rederivations via IVF, the investigator provides either 2-3 practiced stud males, 3-6 months of age, or at 2-4 straws/vials each containing 50-200 ul of frozen sperm. The core will superovulate 3-4 week old females (C57BL/6, FVB or CRD1 ICR strains). If female mice of an alternate strain are required please contact Andrei Golovko ([agolovko@tigm.org](mailto:agolovko@tigm.org)). The core may have to receive IACUC approval to order female mice of that particular strain. There will also be an additional charge to purchase the alternate strain. The core will isolate oocytes from the superovulated females, perform IVF and transfer them to recipient females. If live mice were used in the procedure, the remaining sperm sample can be cryopreserved and stored as a backup. The core will notify the investigator when pups are born and schedule transfer of the mice to the investigator's colony after weaning.

For live embryos the core will transfer to the appropriate stage recipient mothers.

For frozen embryos the core will thaw the embryos according to the protocol supplied by the originating lab and perform embryo transfers.

### Investigator Responsibilities

- **Veterinarian approval is required to import mice/embryos from another institution and transfer rederived mice to the investigator on campus.**
- Fill out a rederivation request form
- Supply IACUC and Biosafety approval information (TAMUS investigators)
- Contact the core 3-4 weeks in advance to arrange a date for rederivation
- Provide the core with 2 proven males of reproductive age (3-6 months old) or 2-4 vials of frozen sperm and cryopreservation/thaw protocol
- Females of the following strains are available at TIGM and can be provided for timed matings: CD1 ICR, FVB, or C57BL/6N. If females of a different background are preferred, please also arrange for importation of 12-15 of those animals, 3-5 weeks of age, to TIGM quarantine
- For frozen embryos the investigator must provide the core with a protocol for thawing the embryos from the originating lab.

If you have additional questions please contact Andrei Golovko.

### Timeline

Day 1: PMSG superovulation of donor females

Day 3: hCG superovulation of donor females

Day 4: Isolate oocytes from donors aseptically. Perform IVF according to Jax protocol or protocol supplied with the sperm samples and culture oocytes overnight. Freeze back up sperm if live mice were supplied

Day 5: Evaluate and transfer 2-cell embryos to recipient females; alternatively, live or frozen embryos can be transferred during this step.

Day 24: Pups born

Day 45: Pups weaned

Day 52-55: Mice transferred to the investigator after serology testing