### Mouse Transgenic and Gene Targeting Core

**MOUSE TRANSGENIC AND GENE TARGETING CORE (TMF)**

The Mouse Transgenic and Gene Targeting Core (TMF), one of the Emory Integrated Core Facilities (EICF), provides state of the art equipment and expertise for making genetically engineered mouse models, moving alleles on or off-campus, or cryopreserving existing strains of mice. The TMF is located on the ground floor of Emory Health Sciences Research Building and occupies laboratories EG41 and EG42. The EG42 space includes a fully equipped tissue culture suite dedicated to embryonic stem (ES) cell culture, embryology laboratory, microinjection/embryo manipulation space, and surgical suite. The EG41 room includes molecular biology space and cryopreserved embryo/sperm archival space. The TMF has 100 sq ft of dedicated office on the 1st floor of the Health Sciences Research Building, which provides for meeting customers, and TMF team meetings. A dedicated workspace for TMF staff is also located in the HSRB animal facility. The TMF lab is supported by 3 staff members. The Core Director (Dr. Karolina Nitsche) and Scientific Director (Dr. Tamara Caspary) provide grant application support and project consultation.

The animal holding/breeding room is located in EG57 is part of the animal facility and is operated by the Division of Animal Resources (DAR) as detailed below. All the mice used by the core are housed in this facility. It is managed by the Emory University Division of Animal Resources (DAR) in strict compliance with the standards and policies of the Public Health Service. Mice are housed in ventilated auto-water caging system and are changed under laminar flow hoods. The DAR staff is responsible for daily care of the animals as well as health monitoring and surveillance. The DAR also maintains vigorous quarantine and sentinel programs.

The core facility is fully equipped to perform all experimental procedures associated with the production of genetically modified mice. In addition, the core facility has research space and equipment to assist laboratories with auxiliary procedures for the production and analysis of genetically modified mice. These include rederivation and cryopreservation services, and custom mouse needs. The TMF has now several services available  in rat including sperm and embryo cryopreservation and semen evaluation.

The Mouse Transgenic and Gene Targeting Core is subsidized by the Emory University School of Medicine. Additional support is provided by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number UL1TR000454.