

**Murine Neurobehavioral Laboratory
Core Policy**

The increased use of transgenic and knockout mice in biomedical research has increased the need for behavioral experimentation. To fill this need, the Murine Neurobehavioral Laboratory (MNL) Core facility was established in conjunction with the Center for Molecular Neuroscience (now the Vanderbilt Brain Institute) and John F. Kennedy Center for Research on Human Development. The objective of the MNL Core is to provide training and consulting for Vanderbilt personnel in the analysis of behavioral phenotypes in mice.

**Facilities and Equipment.** MNL Core equipment includes computer-controlled equipment such as open field activity monitors, startle chambers, shuttle boxes, and operant chambers. Additional apparatus are available to assess balance, coordination, grip strength, analgesia, anxiety, fatigue, and learning and memory.

**Personnel.** The MNL Core is staffed by director Fiona Harrison, PhD and manager John Allison, PhD. They provide behavioral training and consultation services. Because the detection of a behavioral phenotype in mice depends upon factors such as gene, gene product, distribution of gene product, background strain, breeding conditions, and behavioral history of the mice, it is important to consult with Core personnel to develop a battery of tests that will be sensitive to and specific for the phenotype of interest.

**Fees.** We charge a fee for the use of our space/equipment (see our Facilities web page)

**Experimental subjects.** Because the behavior of lab animals is greatly affected by their background, handling, and history, Core personnel will also provide consultation with respect to preparation of animals for behavioral testing. These factors are critical to the success of the behavioral experiments and should be worked out ahead of time with Core personnel. Due to the large variability inherent in behavior, large group sizes are required in order to be confident of the conclusions. If a large number of behavioral tasks is requested, two or more large groups of each genotype may be required. Before breeding mice for behavioral testing, please read the complete guidelines pertaining to the Preparation of Subjects for the Core.