

MU Translational Neuroscience Center: Progressing from Molecules to Behavior

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An important component of modern neuroscience research is the ability to measure systematically and objectively different aspects of behavior. Behavioral analysis is crucial to a strong neuroscience research program because it evaluates the impact of molecular or neurochemical changes on the functioning of the entire organism. Behavioral research can be used to validate the role of a neuroscientist's specific molecular target (e.g., receptor, gene, or enzyme) in a particular behavior (e.g., emotions, learning and memory, or locomotor activity) and subsequently create whole systems that a neuroscientist can use to study a particular pathological state (e.g., depression, drug addiction or obesity). A unique strength of the MU Translational Neuroscience Center is the presence of some "bench" scientists working at the molecular level in pathology, biochemistry and genetics in collaboration with neurobehavioral experts. The Center's modern facilities and trained personnel are available to the MU neuroscience community to help design, conduct and evaluate behavioral research. This will help translate research from the molecular laboratory to the human clinic. This poster will show a summary of the different aspects and tasks we plan to perform at the MU Neurobehavioral Core Facility.