

Resource Summary Report

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Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility

RRID:SCR_017899

Type: Tool

Proper Citation

Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility
(RRID:SCR_017899)

Resource Information

URL: <https://ki.mit.edu/sbc/escell>

Proper Citation: Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility (RRID:SCR_017899)

Description: Core provides service support to all MIT investigators who utilize specialized in vitro cells such as stem cells, organoids, or primary cell lines and/or novel mouse models to study human diseases such as cancer. Projects involve generation of new model system, such as CRISPR-mediated gene editing in mouse to introduce mutation that mimics one found in patients. Helps with projects required optimization of finicky cell cultures and other challenges. Provides customizable set of service options to match specific needs of each project, including consultative advice and troubleshooting, complete tissue culture and microinjection services within our facilities or hands-on training to enable investigators to perform these experiments either at their own laboratory or within our facilities. Services Include: Gene Targeting genomic modification through traditional or CRISPR/Cas9 locus targeting, assistance with targeting strategies and vector designs; Embryonic Stem Cells generation of new ES lines from mouse strains, importation and testing of lines from outside sources, differentiation of ES lines into specific cell lineages or cell types and more; Microinjection injection of mouse ES cells into blastocysts to generate chimeras and injection of DNA, RNA or CRISPR RNPs into the pronucleus of fertilized mouse eggs to generate transgenic and edited mice; Specialized Tissue Culture establishment of new primary cell cultures from a tumor, tissue or organ; Isolation of fibroblasts (MEFs) from mice for culture and analysis; Tissue Culture for Xenograft and Syngenic Modeling optimization, validation and testing of cell lines for orthotopic placement into mice, coordinated with Preclinical Testing Facility; Repository of Reagent Mice Commonly used wild type mice such as C57BL/6j as well as KrasG12D-based models of cancers are maintained on campus for efficient distribution; Training and Troubleshooting for all aspects of embryonic stem cells, primary cultures, animal breeding etc.; Serum, DMEM, LIF and other media components that have been tested and verified

for use with ES cells.

Synonyms: Preclinical Modeling Facility

Resource Type: core facility, service resource, access service resource

Keywords: Preclinical, modeling, system, in vitro, cell, stem, organoid, primary, mouse, human, disease, CRISP, gene, editing, mutation, patient, microinjection, training, service, core, ABRF

Availability: Restricted

Resource Name: Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility

Resource ID: SCR_017899

Alternate IDs: ABRF_766

Record Creation Time: 20220129T080337+0000

Record Last Update: 20260810T040725+0000

Ratings and Alerts

No rating or validation information has been found for Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility.

No alerts have been found for Massachusetts Institute of Technology Koch Institute Preclinical Modeling Core Facility.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.