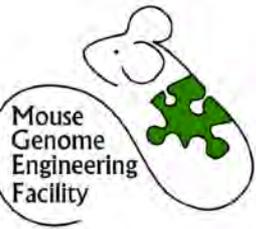




Animal Care and Resource Center

&

Mouse Genome Engineering Facility



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Photographs and Illustrations
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ACRC/MGEF
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Animal Care and Resource Center

Research Models and Services



Maintenance of Laboratory mouse & rat models with highest international standards of Laboratory Animal Care and SPF colony management services

Maintaining over 300 genetically engineered rodent stocks

ACRC Services

- Tissue, organ, blood collection & a wide range of dosing techniques
- Neonatal injections
- High-End Surgeries (Perfusions, Lavage, Cannulation, Ectomies, Xenografting)
- In Utero Injections and Electroporation
- Colon Anastomosis Model Development
- Orthotropic Tumor Model Development
- Necropsy and Histopathology
- Rederivation via Oviduct Embryo transfer
- Ovarian Transplantation
- Genotyping
- Animal Facility Design and Management Consultation Services

Link to
BLiSC
Animal
Repository



Mouse Genome Engineering Facility



MGEF Services

Mouse Stock Sperm | Embryo
Cryopreservation | Cryobanking services

Cryo-recovery | in Vitro fertilization

Rederivation of mouse stocks via SPF level
embryo transfer

Customized media for mouse embryo
culture, IVF, cryopreservation and embryo
handling KITS

Custom Model Generation

CRISPR/Cas Knock-IN

CRISPR/Cas Knock-OUT

Conditional cKO, cKI

Point mutations, Deletions

Humanized Knock-IN

mES cell injections

India's First
Humanized Mouse
Models for
Covid 19 created
at MGEF, BLiSC

(*Available for National
Academic Researchers)

Humanized
ACE2

CRISPR/Cas
ACE2
Knock-OUT



MGEF Service Catalogue :





Training | Workshops | Outreach

ONsite yearly hands-ON Workshops

ONsite on-demand personalised hands-on Training

OFFsite Training Follow-up & Technical Trouble Shooting

ONline Live demonstrations and Video based Tutorials

ACRC Training Modules

Bio-methodologies of laboratory mice and rats

High-End small animal surgeries

Consultation services on design & management of high barrier - SPF laboratory animal facilities

MGEF Training Modules

Mouse embryo harvesting & handling

Embryo & Sperm Cryopreservation & IVF

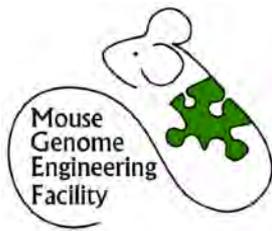
CRSIPR/Cas, genome editing & embryo Micro-Injection

Consultation services on genome editing construct design

BLiSC Animal Resource Center

BLiSC or Bangalore Life Sciences Cluster is an internationally renowned unique hub of cutting edge biological research in India. It umbrellas National Centre for Biological Sciences (NCBS), Institute for Stem Cell Science & Regenerative Medicine (inStem), Centre for Cellular And Molecular Platforms (C-CAMP), and Tata Institute for Genetics and Society (TIGS). Research at BLiSC addresses complex biological questions, seeking new understandings in different avenues of life sciences, and translation of those into tangible technological advances.

ACRC/MGEF is a multifunctional state-of-the-art animal facility at the Bangalore Life Science Cluster (BLiSC) campus. It was set up with substantial support from the Indian Department of Biotechnology (DBT), National Mouse Resource (NaMoR) grant. It follows a combination of respectful management, ethical laws and transparency regarding animal experimentation. ACRC/MGEF's mission is to offer a wide range of services such as mouse stock cryopreservation/vitrification, cryo-recovery, in vitro fertilization, rederivation and generation of novel genome engineered mice for the Indian scientific community. As part of its mission to enhance access to these resources and expertise nationwide, ACRC/MGEF also conducts regular hands-on workshops and individual training to scientists from all over India and neighbouring countries. Acting as a major Indian national repository of over 300 different mouse stocks, ACRC/MGEF over the period of COVID19 pandemic has been instrumental in helping cryo-archive and save dozens of additional precious mouse stocks by reorganizing all its logistical operations. The center facilitates access to local and international expertise in Mouse Model based research and technologies in India.



**Animal Care and Resource Center &
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