

DELIVERABLES U54 YCCEH Animal Modeling Core (D)

Fee for Service			
All costs are calculated based on reagent and labor cost to offer services. Recovered funds will feed directly back into the AMC to expand available services and access to users.			
Service provided	Description	YCCEH Member	Non-Yale – Academic
Xenotransplantation*			
NSG	Adult animal, non-engrafted	\$120	\$198
MISTRG	Adult animal, non-engrafted	\$140	\$231
NSG	Litter, non-engrafted	\$520	\$858
MISTRG	Litter, non-engrafted	\$600	\$990
NSG	Adult animal, CD34-engrafted	\$320	\$528
MISTRG	Adult animal, CD34-engrafted	\$340	\$561
NSG	Litter (≥5 pups), CD34-engrafted	\$1,250	\$2,063
MISTRG	Litter (≥5 pups), CD34-engrafted	\$1,450	\$2,393
NSG	BLT (Bone marrow-liver-thymus)	\$410	\$677
MISTRG	BLT (Bone marrow-liver-thymus)	\$430	\$710
Per diem cage/day		\$1.64	\$2.72
Services*			
Injection	i.v., i.p., s.c. (per animal)	\$18	\$30
Injection	Intra-femoral (per animal)	\$48	\$79
Bone marrow aspiration	Per animal	\$48	\$79
Oral gavage	Per animal	\$12	\$20
Flow Cytometry	Mouse tissues (4-color, per tube)	\$24	\$40
Mouse Tissue Harvest	Per hour	\$90	\$149
Irradiation	Per animal (minimum of 5)	\$12	\$20
Irradiation	Per litter	\$90	\$149
Phlebotomy	Per animal	\$16	\$26
Hematopoietic Cells (YHTB)			
AML	Frozen, per vial (5x10 ⁶ – 1x10 ⁸)	\$75	\$125
ALL	Frozen, per vial (5x10 ⁶ – 1x10 ⁸)	\$75	\$125
Bone Marrow	Patient bone marrow	Based on availability/cell#	
Bone Marrow	Normal Volunteer	Not currently available	
Murine Stem Cell Transplantation			
No fees will be charged for teaching. Performance of services will be charged as above.			
Transgenic Mouse Core			
Gene targeting	Simple knockout, conditional knockout or simple knockin/sequence editing, large sequence insertion, gRNA design construction, LoxP or Tag design, construct design, genotyping/surveyor assay	\$5,285/try [#]	\$8,810/try [#]
* Mice will not be shipped to investigators. Experiments will be performed at Yale. Tissues can be shipped, paid by recipient. Mice for use at investigator's institution will have to be requested and purchased from Jackson laboratory.			
[#] based on difficulty it may take more than 1 try to obtain transgenic animals, up to 4 tries.			

DELIVERABLES U54 YCCEH Animal Modeling Core (D)

The humanized mouse core will offer

1) experimental mice - (i) non-engrafted, (ii) engrafted with human CD34+ cells, (iii) BLT mice (NSG and MISTRG mice can be further modified via implantation of fetal thymic tissue with concurrent transplantation of autologous hematopoietic stem and progenitor cells (derived from fetal liver), this results in improved function of the human immune cells (T-cells in particular)).

2) experimental guidance and assistance at various levels, from training to full-service experiments.

The transgenic mouse core will

1) design and execute CRISPR/Cas9 mediated gene targeting in mice. Transgenic animals will be transferred to the investigators. (*currently transgenic animals can not be offered to non-Yale investigators in the MISTRG background)

The murine stem cell transplantation core will provide training and expertise in:

1) obtaining hematopoietic cell populations of interest from hematopoietic tissues, such as fetal livers, bone marrow, and spleen

2) transplantation methodologies.

3) analysis of cellular function *in vitro* and *in vivo*.

The Core will offer to perform murine stem cell transplantations as a service in select cases, where training is not feasible.

The core will also provide 1) assistance in designing the experiments, 2) assistance in achieving IACUC approval, and 3) protocols.