



**General Operations Appendices
Standard Operating Procedures
V1.01, 11/1/2022**

APPENDIX 1

MMRRC Selection Criteria for Submitted Mouse Lines

1. This document defines guidelines that the CC uses to decide whether to accept, reject, or defer mouse lines submitted to the MMRRC National Network.
 - a. Type 1 "Standard, Reviewed Submission": Independent researchers submitting mouse lines; CC will apply the review criteria below to determine whether the strain has sufficient value to be preserved using NIH resource funding provided to the MMRRC.
 - b. Type 2 "NIH Pre-Authorized Submission": researchers who have one or more strains that have been pre-approved for transfer to the MMRRC repository by their NIH Program Officer; Donating Investigators (DI) will need to identify the sponsoring institute and program officer. ICSC will confirm with the MMRRC Program Officer if pre-authorized. SAC will assign the strain to a center during monthly strain assignments if approved.
 - c. Type 3 "Donor-funded/Contract Submission": DI with funding to subsidize the establishment of their strain may specify a preferred MMRRC facility for the maintenance of their strain; mouse lines submitted in this category will not go through a formal acceptance process; SAC will, if necessary, assign the mouse line to a Center, if the DI has not already negotiated assignment prior to submission. NOTE: Center created type 3 lines are a subset of type 3 submissions created by a specific center.
2. For strains not pre-authorized, the CC shall be the final authority for judgement of the merit of mouse strains/lines submitted to the MMRRC Program during monthly strain reviews. If accepted, the SAC will assign the strain to a Center. The SAC will also make Center assignments for pre-authorized strains based on unique features/needs of each strain and the suitability of the Center. Alternatively, an individual NIH Program Officer or sponsoring institution may request the CC to judge the merit of a pre-authorized mouse strain/line submission or may request assignment to a particular Center.
3. The CC considers 6 objective criteria and numerous subjective ones when evaluating submission applications for accepting mouse lines into the MMRRC Program. The 6 Objective Criteria that should be evaluated and fulfilled to allow further consideration of a mouse line are:
 - a. Criterion 1 - created using sound scientific methods;
 - b. Criterion 2 - is distinguishable genotypically and/or phenotypically from other known existing mouse strains;
 - c. Criterion 3 - exhibits a clearly identifiable and/or useful phenotype;

- d. Criterion 4 - exists (as submitted) at no other distribution center;
 - e. Criterion 5 - is available for distribution to the scientific research community; and
 - f. Criterion 6 - controls are readily available or unique controls will be provided.
4. Acceptance of a mouse line by the MMRRC should be based on an evaluation of all 6 established criteria, and not just on the basis of 1 of these criteria.
 5. For Criterion #2, a genotypically distinguishable mutant mouse line is one that can be specifically and distinctly identified using standard analytical approaches (e.g., PCR, Southern, etc.) from any other mutant mouse line. Thus, mutant mouse lines in which the same gene has been mutated (e.g., knockout) may be acceptable by the MMRRC as long as they can be distinguished genetically (e.g., different exons deleted, different SNP's, etc.). Further, mutant mouse lines created by induced complementation (e.g., transgenic microinjection on a knockout background), natural mating between mutant mouse lines (e.g., double homozygous knockout), and other methods, as long as they are genotypically and/or phenotypically distinct from other existing mutant mouse lines, fulfill this objective criterion.
 6. For Criteria #1, 3, and 5, a manuscript or report (published or in-press) that accompanies a submission application and describes the creation and/or use of a mutant mouse line is usually required because it is compelling evidence in support of its potential scientific usefulness and, in turn, value to the biomedical research community. However, the absence of an accompanying publication is not in itself reason to reject acceptance of a mouse line. For example, numerous mutant mouse lines can be generated by high-throughput mutagenesis projects (e.g., ENU screens) long before they can individually be studied, and their findings published. Preferably preliminary data is available and readily accessible for example through web-based databases. In keeping with the NIH policy on resource sharing, the MMRRC actively assists researchers with making their mutant mouse lines from these and other mutagenesis projects available to non-profit entities for research. In fact, it is the MMRRC's mission to make mice from these and other mutagenesis projects available in the public domain for research.
 7. Further, submitting a mouse line which was created fully or in-part by someone other than the submitting DI must be accompanied by sufficient documentation (e.g., published reference, letter of release, MTA, etc.) confirming that the DI has the authority to submit the mouse line to the MMRRC.
 8. In addition to these established 6 criteria, other more subjective criteria should be considered, and are left to the judgment of each CC member. Subjective criteria include, but are not limited to, significance, innovation, demand for and usefulness of the mouse strain/line in biomedical research. Ultimately, acceptance of a mouse line by the CC should be based on an overall evaluation of both objective and subjective criteria.

APPENDIX 2

MMRRC Delayed Release and Distribution Policy

1. In order to encourage submission of valuable mouse strains while the Donating Investigator awaits publication of the first paper describing the strain, the submission form includes an option to request Delayed Release. If the strain is accepted with Delayed Release, the MMRRC will not list the strain in the MMRRC website catalog and the strain will not be available for distribution to other researchers during the Delayed Release period which is the time between acceptance of the strain by the MMRRC and publication of the first paper, up to a maximum of 12 months. During this Delayed Release period, the assigned MMRRC facility will import and cryopreserve the strain. The DI should notify the MMRRC (sacoord@mmrrc.org) of a pending or actual publication.
2. Pursuant to NIH policy, the MMRRC will list the strain in the MMRRC Catalog and make mice available as soon as feasible after the expiration of the Delayed Release period or sooner upon the DI's approval.
3. The DI is requested to cite the MMRRC (www.mmrrc.org) as providers of the strain in manuscripts describing research using the strain

APPENDIX 3

MMRRC Distribution Policy

1. Abbreviations and Definitions

MMRRC Program: Mutant Mouse Resource and Research Center Program

MMRRC: individual Center(s) participating in the MMRRC Program

CC: Coordinating Committee of the MMRRC Program

ICSC: Informatics Coordination and Service Center of the MMRRC Program

Cryopreserved Material: Cryopreserved embryos or germplasm

CS: Customer Service at an individual MMRRC

DI: Donating Investigator(s) or Institution

RI: Requesting Investigator(s) and/or Institution

Recipient: RI with an ICSC account authorized to receive mice from an MMRRC

IACUC: Institutional Animal Care and Use Committee

Strain: any mutant mouse maintained and distributed by an MMRRC

2. Overview

This document details policy and procedures by which an Requesting Investigator (RI) requests and receives strains distributed from an MMRRC. Strains requested and received by RIs or their Institution from the MMRRC Program are intended to be used for non-commercial biomedical research purposes only, unless distributed under license from the Donating Investigator (DI).

3. Licensing and Use Restrictions

- a. The MMRRC Program is committed to advancing biomedical research by the preservation and distribution of valuable mutant mouse strains. DIs (Donating Investigators) agree to transfer strains to the MMRRC Program under the least restrictive terms to allow the MMRRC to distribute strains to researchers with the fewest administrative burdens which could delay distribution.
- b. As a condition of placing a request, an RI agrees to the terms and conditions of the MMRRC Conditions of Use (COU) or signing the appropriate MTA for material from a

specialized collection. Refer to the existing agreements page on the MMRRC website - <https://www.mmrrc.org/catalog/mtInstructions.php>

- c. When an order is received for a strain requiring commercial licensing, no special ICSC processing is needed. The order review follows standard procedures, as does the order release to the Center for processing. All subsequent actions are taken by the Center. The ICSC is not involved. For the sake of being informed, the steps are:
 - i. The licensing requirement will show up in the *Technology Transfer and Related Requirements* section of the order page; this will need to be marked completed by the Center before processing or fulfilling the order.
 - ii. The email sent to the Requestor upon ICSC release of the order includes instructions to contact the Commercial License contact using the SDS language, *"A Commercial License Agreement from the Donor is required for a for-profit entity to use this strain. For more information, please contact [Commercial License Contact Name and email address]."* The latter information is available in the Conditions of Use section of the strain detail sheet.
 - iii. The Center will accept and process the order once the donor or their institution has confirmed that the license is in place and record the termination date. (The Center is responsible for tracking license agreements.)

4. Distribution and Processing Fees

a. Deposits and Prepayments to Cover Processing

- i. An RI from an institution from outside the United States will be required to post prepayment in full prior to fulfillment of a request by an MMRRC.
- ii. An RI from an institution within the United States that was delinquent on previous payments to the MMRRC may be required to post a deposit and/or a prepayment in full prior to fulfillment of a request by an MMRRC.
- iii. For any other situations, at the discretion of the supplying MMRRC, an RI may be required to post a deposit or prepayment prior to fulfillment of a request by an MMRRC.
- iv. At the time an order is confirmed with the RI, an RI will be informed as to any advance fees that will be required by the supplying MMRRC.

b. Live mice obtained from a breeding colony

- i. An RI will be charged a distribution fee by the supplying MMRRC. The listed distribution fee is on a per-mouse basis (unless stated otherwise) and is exclusive of shipping and handling fees.
- ii. Distribution fees for strains maintained as live mice in an active breeding colony, cryo-preserved formats, and ES cell lines are established by each Center for cost-recovery purposes and may include indirect costs from their institution for RIs outside of their institution, as well as full cost (taking into account up-front costs covered by the NIH grant) to commercial entities.

c. Live mice obtained by derivation from a cryopreserved archive

- i. An RI will be charged a cryo-recovery fee by the supplying MMRRC to obtain live mice of a strain maintained only as a cryopreserved archive. The cryo-recovery

fee partially offsets the cost of removal, recovery, and replacement of cryopreserved germplasm of a strain maintained only as cryopreserved embryos and/or germplasm in a cryopreserved archive.

- ii. The cryo-recovery fee entitles an RI to receive a litter of mice recovered from the cryopreserved archive, amounting to at least one breeder-pair or an equivalent number of mice. (Depending on the breeding and reproductive characteristics of the strain and the breeding protocol, one or two females and a male will be considered equivalent to one breeder pair; for strains maintained by outcross to a different background strain, the composition of one breeder-pair equivalence may vary.)
- iii. At least one mutation carrier is guaranteed in a litter obtained by resuscitation for the cryo-recovery fee. If requested, and in addition to the cryo-recovery fee, specific quantities and genotypes of mice will be derived and shipped to the RI, who will be charged appropriate fees for cost recovery (e.g., per diem, genotyping, management) by the Facility.

d. Cryopreserved germplasm obtained from a cryopreserved archive

- i. An RI will be charged a cryo fee by the supplying MMRRRC to obtain cryopreserved germplasm of a strain maintained only as a cryopreserved archive; this cryo fee may differ from that charged for live mice obtained by derivation from a cryopreserved archive. Frozen material may be distributed from some strains maintained as live colonies on request.
- ii. An RI can determine availability for distribution of a strain by cryopreserved material from an MMRRRC by looking in the MMRRRC Program Catalog; when available, this option is provided solely for the benefit of the RI.
- iii. The cryo fee entitles an RI to receive one aliquot of cryopreserved embryos or sperm. Multiple aliquots may be requested.

e. Shipping and Handling

- i. An RI will be responsible for shipping and handling costs, which are not included in the published distribution and cryo fees; shipping and handling costs are itemized separately on invoices or billed directly by the carrier.
- ii. **Live mice:**
 1. Shipping and handling costs include the price of suitable shipping containers for mice and the carrier freight charges. The supplying MMRRRC will determine the handling costs and may request a courier account for direct billing of shipping to the RI, or bill the RI if using the Facility account.
- iii. **Cryopreserved embryos and/or germplasm:**
 1. Handling costs do not include the carrier freight charges. An RI must return the cryo-material shipping container promptly after delivery and in a serviceable condition to the originating MMRRRC; failure to do so will result in billing replacement cost to the RI for the cryo-material shipping container.

iv. Special Requests

1. The supplying MMRRRC may assess additional fees for any special requests (e.g., specific age or weight of mice, pregnant females, *etc.*); such fees will be applied consistently by the supplying MMRRRC for all such requests.
2. Agreement to fulfill special requests is at the discretion of the supplying MMRRRC. Any special requests made by an RI will be noted by the ICSC representative, who will explain that the supplying MMRRRC will detail the specification(s) with an RI as part of finalizing the request.

v. International Requests

1. Acceptance of international requests is at the discretion of the supplying MMRRRC. An RI may be charged an additional fee by the MMRRRC for the preparation of export documents as appropriate.
2. An RI must check the country's requirements for importing animals into the RI's institution before placing an order for a strain. An RI must send certified copies of relevant documents in English to the supplying MMRRRC before an order can be fulfilled. If the institution in the importing country requires import permits, or any special labels (e.g., rabies), an RI must provide these materials to the supplying MMRRRC before shipment is scheduled.

5. Processing and Delivery of Distribution Requests

a. Items available

- i. By looking in the MMRRRC Program Catalog, an RI determines the available strains, the forms of the material, their maintenance level, and distribution and/or cryo-recovery fees associated with each strain.

b. Distribution Request

- i. A RI initiates a distribution request for any strain or ES cell line from the MMRRRC Program by placing a request via the online Order Tracking System (OTS). The Informatics, Coordination and Service Center (ICSC) customer service representatives (CSR) will review all order requests and either approve the request or contact the RI, if necessary, to obtain more information or to explain why the request cannot be filled. Once an RI is determined to be qualified as a Recipient eligible to order and receive strains from the MMRRRC program, the ICSC will approve the request in the OTS. This action triggers an automated email to the RI confirming the request has been received and forwards the request to the supplying MMRRRC. It also triggers an email with the distribution restrictions (MTA or COU requirements). If the MMRRRC Facility can fulfill the request, they accept the request, and it becomes an order. If for some reason the request cannot be filled as submitted, the Facility staff will contact the RI directly for clarification or decline the request, entering the reason into the OTS.

Acceptance of an order by the Facility staff triggers an automated email to the RI saying the order has been accepted. During the fulfillment process, Facility staff may trigger appropriate automated milestone emails to the RI with status updates. CSR forwards an update regarding IP restrictions once the user MTA or COU is received for center review and acceptance.

- ii. If Investigators / Purchasing agents call the ICSC CS, they are referred to the web site to place orders. If they are unable to place the order on-line, an ICSC CSR will assist in completing the order or describe for them the needed information, direct them to the web site and offer assistance if they still feel they need it.
- iii. Due to conventional accounting practices, the following apply:
 1. A separate order request and purchase order (PO) are required for each RI.
 2. A separate PO is required for each order request, except that order requests on the same day from the same RI for different strains can be made on one order request form.
 3. Multiple strains or lines within a single order may be covered by a single PO.
 4. If the RI is using a PO and the order requests materials from multiple MMRRRC Facilities, order requests for strains at different Facilities must be charged to different PO numbers, because the different MMRRRC Facilities handle their own billing.

c. Quantities

- i. The MMRRRC Program is not a commercial breeder; being a non-profit repository, the MMRRRC Program supplies limited quantities of breeders. Requests for quantities in excess of the listed availability level for any strain will be considered by the supplying MMRRRC based on its ability to supply the requested quantities while maintaining the strain's availability to the general research community.
- ii. The Facility with the strain(s) will contact an RI requesting greater quantities to negotiate distribution of quantities above the availability level. The quantity requested by an RI does not constitute an actual order until the supplying MMRRRC agrees to provide the quantities requested in excess of the listed available quantities, normally at the time the order request is accepted by the supplying MMRRRC.
- iii. In order to obtain greater quantities, an RI may request a contract directly with the supplying MMRRRC for custom breeding.

d. Requests from Cryopreserved Archive

- i. Before fulfilling a request for a strain or material from a cryopreserved archive, a Center may require the PI to establish a written agreement (e.g., email, FAX) with the supplying MMRRRC that states the following terms:
- ii. By submitting an order request, an RI agrees to be responsible for paying a cryo fee for derivation of live mice by cryo-recovery of cryopreserved embryos and/or germplasm of a strain maintained only in the cryopreserved archive. Should an RI subsequently decide to cancel, or not to accept delivery of mice recovered from the cryopreserved archive, they will still be invoiced for the service.

e. Order Fulfillment

- i. At the time of finalizing the order request, the supplying MMRRC will provide full details of fees for the requested material and estimates of the shipping costs.
- ii. All mice will be shipped in protective, filtered containers.
- iii. All cryopreserved embryos and/or germplasm will be shipped in cryo-material shipping container.
- iv. Approved transportation companies are listed on the MMRRC web site. For additional information concerning transportation to a specific institution, staff at the MMRRC Facility providing the strain should consult the RI as to whether he/she wishes to request a specific transporter.
- v. When finalizing the order request, the supplying MMRRC will also inform the RI of the date they estimate they will ship the strain or material. Prior to shipment, the center will contact the RI to finalize the schedule for delivery.

f. Customer and Technical Services at an MMRRC

- i. The MMRRC's ICSC Customer Services will handle questions from RIs requesting information on mice strains or material or fees and general shipping information. Any questions related to order fulfillment, shipping, invoicing, collection or technical questions related to breeding and husbandry will be referred by the ICSC CS to the appropriate MMRRC Facility staff.
- ii. Each MMRRC Facility provides access to a CS contact at their facility. Once a request is confirmed with the supplying MMRRC, the RI may contact the Center directly for further assistance with that request. The MMRRC website's Members' page (<https://www.mmrrc.org/about/members.php>) lists the CS contact for each center. The ICSC CSR will still handle initially all requests to the ICSC CS and only refer those that the ICSC staff cannot answer. This person or group will assist recipients with questions about booked order requests, shipping and collection. They will also route within their Facility requests for technical assistance with breeding or husbandry of an MMRRC strain distributed from their facility.

g. Changes and Cancellations

- i. Once a request is made and processing begun, an RI is liable for all costs incurred in processing the request.
- ii. To request any cancellation, suspension, rescheduling of shipment of live mice or change to an order, the MMRRC requires that the RI must submit the request to the supplying Center's CS contact in writing by email or fax before 12:00 PM noon (by that MMRRC's local time) three (3) business days prior to shipment. It is expected that a RI will contact the appropriate MMRRC by telephone to confirm receipt of the written cancellation, suspension, rescheduling of shipment or change to the order. The RI also may contact the ICSC CS and the request will be forwarded to the fulfilling facility as soon as received. This mechanism also enables the ICSC CSR to have a record of the request.
- iii. An RI cannot cancel, suspend, reschedule, or change order requests for live mice derived from cryopreserved archive once order processing commences; an RI agrees to be responsible for payment of the cryo fee upon submitting an order request.
- iv. An RI will be invoiced for the full distribution fee and any unavoidable shipping and handling costs (e.g., cost of shipping containers) for any cancellations, suspensions, and rescheduling of shipment that occur on the day of shipment.
- v. Special requests may involve conducting procedures several weeks in advance of shipment. An RI may request cancellation, suspension, rescheduling of shipment or change to an order for these services, however acceptance of such modifications is at the sole discretion of the MMRRC. The MMRRC will invoice for any services once the service is initiated.

h. Breeding protocols involving a non-MMRRC mouse strain

- i. When a breeding-maintenance protocol requires the use of a strain (e.g., wild type background strain) not offered through the MMRRC Program, an MMRRC may or may not be able to supply the necessary strain.
- ii. The MMRRC informs a RI of the preferred control strain, even if an MMRRC cannot legally redistribute the preferred control strain.

- iii. As an alternative to the preferred control strain, wildtype (no transgene or other induced mutation present in the genome) littermate mice may be provided as a control mouse for a mutant line. If available for a mutant line, wildtype littermate controls will be listed in the on-line strain catalog; if not listed, the RI should contact the supplying MMRRC to determine whether special arrangements can be made to obtain wildtype littermate controls. When wildtype littermates are available (e.g., sibling progeny from a mutant line maintained by heterozygous matings), an RI will be charged the per mouse fee listed on the MMRRC fees web page; additional fees may be incurred by the RI when making special arrangements for obtaining wildtype littermates from the supplying MMRRC.
- iv.

i. Returns

- i. MMRRC Facilities will not accept the return by a RI to a MMRRC any mice, embryos, and/or germplasm of a strain, nor any shipping containers used to ship live mice.

6. Terms of Credit, Invoicing and Collection:

a. Payments

- i. Invoicing and collection are handled separately by each supplying MMRRC; credit arrangements are solely at their discretion. A RI should direct payments to the supplying MMRRC according to instructions in the invoice from the MMRRC.
- ii. Each facility may determine what forms of payment it will accept. Payment forms may include money order, major credit card, wire transfer, and check drawn on the recipient's institutional bank account may be accepted depending on each MMRRC. Payment by a USA or an international Postal Money Order should be made payable to the name of the supplying MMRRC from where mice were shipped.
- iii. Terms are net 30 days payable in U.S. currency. Shipping, handling, and container charges are prepaid by the supplying MMRRC and are thus added to the invoice as separate items. If the carrier bills the RI directly for shipping, only handling and container charges will be added to the MMRRC invoice. A Facility may require prepayment for an international order.
- iv. RI institutions are expected to include invoice number(s) on all remittances.
 - 1. *Payment Sent by Mail:* Payments are requested to be sent to the address of the supplying MMRRC (found on invoice).
 - 2. *Payment by Wire Transfer:* Wire transfers are requested to include 1) the name of the institution making the payment and 2) the invoice number(s) for which the payment applies. The RI institution is expected to send copies or wire transfer information to the supplying MMRRC from where mice were shipped. The supplying MMRRC provides instructions for sending wire transfers.
- v. The Customer Service representative at the supplying center from where mice and other products are shipped will provide assistance to RI regarding billing, invoice, and related questions.

b. Delinquent Accounts

- i. In the event of collection difficulties, a RI's institution may have a credit-hold placed on it by an MMRRRC; a credit-hold will prevent approval of an order request for an RI until release of the credit-hold is approved by the originating MMRRRC.

c. Replacement and Refunds

- i. **All distributions of strains, either as mice or as cryopreserved embryos and/or germplasm, to an RI from an MMRRRC are final.**
- ii. **Live Mice: An RI is expected to report requests for credit and carrier-related complaints by telephone to the supplying MMRRRC CS within 5 business days after receipt of shipment, and follow up this report by written (e.g., email, fax) confirmation. RI may be issued credit or replacement mice when:**

1. An MMRRRC ships the incorrect strain, sex or genotype of mice; an RI should notify the supplying MMRRRC as soon as the mistake is detected.
2. Mice arrive dead or moribund, or become sick within 3 days of arrival, provided that the problem is reported to the supplying MMRRRC within 5 business days after receipt.
3. Mice arrive in damaged containers; an RI is expected to note damage on the delivery manifest at the time of receipt of the shipment and notify the supplying MMRRRC immediately.

- iii. **Cryopreserved embryos and/or germplasm: An RI will be issued credit or replacement of cryopreserved embryos and/or germplasm by an MMRRRC for the following reasons:**

1. The supplying MMRRRC ships an incorrect strain or type of cryopreserved material.
2. Cryo-material arrives in damaged containers compromising the integrity of the cryopreserved embryos and/or germplasm; an RI should note damage on the delivery manifest at the time of receipt of the shipment and notify the originating MMRRRC within 5 business days after receipt.

iv. Limitations

1. In case of dissatisfaction with any strain or biological material shipped for a valid reason as determined by the MMRRRC, liability will be limited, at the option of the supplying MMRRRC, to replacement of the strain or biological material provided. Replacement of strain or material shall be the exclusive remedy of the Recipient.
2. A supplying MMRRRC should bring to the attention of the CC for discussion any situation (e.g., failure of the shipping company) in which the MMRRRC finds reason that they should not be obligated to honor a request from an RI for credit or replacement. After discussion, the CC will make a collective determination as to whether the supplying MMRRRC is obligated to honor the request.

7. Cryopreservation-related Issues:

- a. Derivation of mice of a strain maintained only as cryopreserved embryos and/or germplasm material in a cryopreserved archive is a complex task; while techniques and performance continually improve, the process is by no means guaranteed. Once mice are derived, they must be bred sufficient to supply the requested orders and restock the repository. Strains can vary greatly in their breeding performance. Strains that are slow or difficult to breed add to the time needed to fulfill a recovery request. Additionally, some strains require genotyping to determine which mice are suitable for breeding or distribution; this further increases the total time.
- b.
 - i. Derivation of live mice of a strain maintained only in a cryopreserved archive (as cryopreserved embryos and/or germplasm) requires a minimum of 16 weeks to complete request fulfillment.
 - ii. A RI will not be billed for a cryo-recovery attempt by an MMRRRC in the event that it is unable to successfully resuscitate mice for distribution.
 - iii.** An RI will be provided a litter of mice recovered from the cryopreserved archive, amounting to at least one breeder pair with at least one mutation carrier for mutant strains or an equivalent number of mice following derivation of live mice; requests for larger quantities of mice can be made through special arrangements with the supplying MMRRRC.

APPENDIX 4

MMRRC Pricing Policy

1. **Summary:** This document describes the MMRRC pricing policy for charging a Recipient Investigator (RI) a distribution fee for mouse line materials and ES cell lines ordered from the MMRRC. The philosophy of the MMRRC pricing policy is to ensure the broadest possible availability of MMRRC mice to the research community by charging fees that are reasonable to the user but allow for cost recovery by the center. The framework of the MMRRC pricing policy is based on 1) the real cost to the supplying MMRRC for importing, maintaining, archiving, genotyping, phenotyping, and distributing MMRRC mice, and 2) the amount of support provided by the base grant to each of the supplying MMRRC Facilities. Distribution fees are set individually by each center as per their institutional requirements.
2. **About MMRRC Mice Distribution Fees**
 - a. MMRRC distribution fees are intended to help cover the continually rising costs associated with specialized mouse breeding, genetic quality and animal health monitoring, cryopreservation, customer service, technical information and support, and maintaining any updated scientific information that is maintained by the Facilities on all genetically altered mice within the MMRRC Program. Distribution fees for MMRRC mice are in U. S. dollars; distribution fees are exclusive of shipping, handling, and container charges.
 - b. The MMRRC Program is not a commercial breeder; being a non-profit repository, the MMRRC Program supplies limited quantities of breeders. Order requests for quantities in excess of the listed availability level for any strain will be considered by the supplying MMRRC Facility based on its ability to supply the requested quantities while maintaining the strain's availability to the general research community.
 - c. Distribution fees include a per mouse fee, and if applicable a cryo-fee and/or a cryo-recovery fee. The per mouse fee applies to requesting mice from a live colony or additional mice of a specific genotype from a cryo- resuscitation, and helps to defray the cost of importing, rederiving, maintaining, genotyping, phenotyping, and health monitoring of MMRRC mice. The cryo-fees apply to requesting cryopreserved embryos, sperm, oocytes, and/or ovaries, and helps to defray the cost of cryopreservation and cryo-replacement of a mouse strain to be distributed as cryopreserved material, and that is maintained only as a cryopreserved archive. The cryo-recovery fee applies to requesting mice from a strain maintained as cryopreserved only, and partially offsets the cost of cryo-resuscitation, in addition to cryopreservation and cryo-replacement, of a mouse strain to be distributed as live mice; this fee entitles an RI to receive a litter of mice containing at least one mutation carrier recovered from the cryopreserved archive (amounting to at least 1 breeder-pair or an equivalent number of mice).
 - d. At the discretion of the supplying MMRRC Facility, a RI may be required to post a deposit or prepayment prior to fulfillment of a request by an MMRRC. At the time an order is confirmed, a RI will be informed as to any advance fees that will be required by the supplying MMRRC.
3. **Distribution Fees**
 - a. Distribution fees are listed on the MMRRC website fees page. Individual fees are not given in this document because they may increase each year.

- b. Live mice (3-5 weeks of age) obtained from a breeding colony: one fee is charged per mouse (the supplying MMRRC may assess additional fees for any special requests, *e.g.*, specific age or weight of mice, pregnant females, *etc.*);
- c. Litter of mice (containing at least one breeder pair or an equivalent number of mice and one mutation carrier) obtained by derivation from a cryopreserved archive: one cryo-recovery fee is charged per order; If RI requests additional mice in litter of specific genotype and/or a larger quantity, then an additional per mouse charge for each additional mouse.
- d. Cryopreserved materials obtained from a cryopreserved archive: one cryo-fee is charged for distribution of one aliquot of cryopreserved sperm; a different single fee is charged for distribution of either one aliquot of cryopreserved embryos (20-40), oocytes (20-40), or ovaries (2-4).