RUTGERS UNIVERSITY Office for Research

CMR STANDARD OPERATING PROCEDURE

TITLE: How to Submit iLab Request for Germfree Rederivation		
SOP Category: Gnotobiotic	**CMR SOP #: 4.34**	**Page: 1 of 2**
Effective Date: 10/10/23	**Approval: LaTisha V. Moody, DVM, DACLAM**	
Revisions: 8/7/23, 10/5/23		

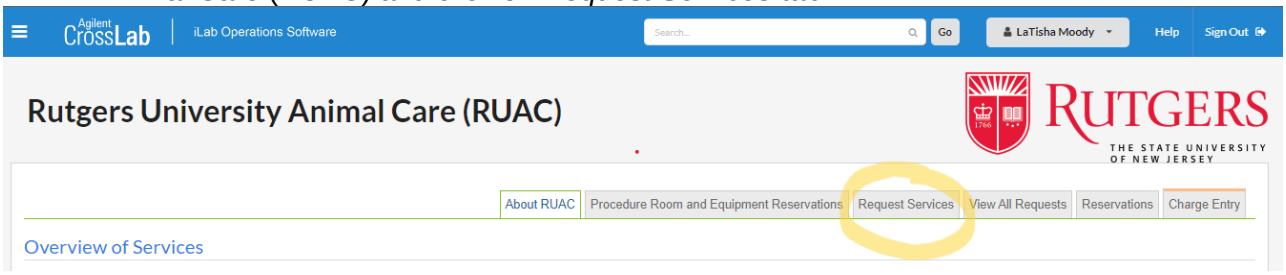
SCOPE:

This document describes the procedures to be followed when making a request to rederive germ-free (GF) mice via caesarean section. This SOP applies to all Gnotobiotic Animal Care Staff (ACS), ACS Supervisors (ACSS), Veterinary Staff (VS), and Research Staff members (RS) utilizing the gnotobiotic core at Rutgers University.

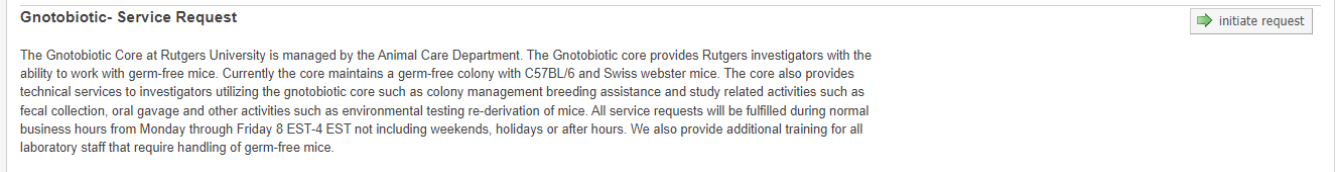
OBJECTIVE:
To describe the process to make a request to rederive transgenic strains of mice into germ-free status.

A. How to Place Requests into iLab for Rederivation

1. Principal Investigator (PI) should ensure all activities being requested are listed and approved in their animal use protocol.
2. PI should notify the Newark Gnotobiotic Core (Core) of their intentions to rederive strains into GF status. PI or lab members can contact the core directly by emailing. gnotobiotic@research.rutgers.edu and will receive a response within 1-2 business days.
3. The email to the core should include:
    a. PI and protocol number and other pertinent contact information for communication between the research staff and the core.
    b. The number of females and lines that are wanting to be rederived to ensure we have adequate GF foster mothers available.
4. Once the core has agreed that rederivation can be performed, the PI or designated research member must place an iLab request for rederivation at https://rutgers.ilab.agilent.com or can access the Rutgers Animal Care Program website and click on the *iLab Service Requests* tab.
5. Once logged into iLab and an account has been created, navigate to Rutgers University Animal Care (RUAC) and click on *Request Services* tab.



6. Scroll down to the Gnotobiotic Core Service Request and click on *Initiate Request* tab.



7. Choose the service listed as "Rederivation" and fill out the iLab form.
    a. Please note the procedure cost is priced per pregnant donor female and please include any pertinent information into the iLab request form.
8. Submit the iLab request form and the core will be notified.
9. **Make an ACFC Transfer Request**. The gnotobiotic core will transfer the donor mice to be rederived from the PI's protocol onto the Moody protocol PROTO201800253 through ACFC.
10. At Rutgers University, health surveillance testing is routinely performed every 3-4 months as referenced in SOP #4.25 Gnotobiotic Sentinel Colony Surveillance. Donor mice with known pathogens should be excluded for rederivation but not limited to fur mites, pinworms, parvoviruses, Helicobacter, and C. bovis. Other pathogens that cross the placenta should also be screened for including *Lactate dehydrogenase-elevating virus* (LDV), *Mycoplasma sp*., *Lymphocytic choriomeningitis virus* (LCMV) and *Rodentibacter pneumotropicus*[1]. The Gnotobiotic Facility Manager & Gnotobiotic Director will screen mice for rederivation to ensure they are good candidates which may include additional testing before accepting donor mice into the core.
11. Once donor mice have been screened and approved for rederivation, the MSB facility supervisors will also be notified.

B. During Rederivation & After Rederivation Procedure

1. The rederivation procedure will be performed by the core following the SOP # 4.3 Rederivation of Germ-free mice, on the agreed timeline outlined in iLab and other communication methods.
2. The entire process will include regular communication and updates from the core on the health and status of the mice.
3. On postnatal day 14, all pups will have feces collected by the core. The feces will be screened and tested for evidence of any bacteria, fungi, and other foreign contaminants using 16S RNA PCR and culture.
    a. If genotyping is requested in iLab, it will be performed on postnatal day 14-21 during the same time of fecal collection. The core will coordinate pickup of samples for genotyping results.
4. Additional fecal samples will be collected from pups on postnatal day 21 and submitted for screening to confirm GF status.
    a. Note: results for screening may take up to 1-2 week to receive.
5. Once results are obtained from the second round of testing and GF status is confirmed, the core will put in an ACFC request to transfer germfree mice back onto the PI's protocol. Record results in the Rederivation log.

[1] Schoeb,Trenton R. and Rahija, Richard J. 2015. "Chapter 26: Gnotobiotics." *Laboratory Animal Medicine*. 3rd edition, page 1287. Academic Press.