Mouse Genetics Core
Speed Congenics Project Request Form

PI: _____

Contact person: _____

Contact person info:

phone #1: _____ phone #2: _____

FAX: _____ pager: _____

Email:_____

Date Submitted:_____

Mutation name: _____

SERVICE DESCRIPTION: A mutation/polymorphism/genotype will be transferred from one inbred strain (initial) to another (target) in five generations through screening for strain-specific polymorphisms. We can transfer a mutation between strain pairs 129SV↔C57Bl6, FVB/N↔C57Bl/6, SWR↔BALB/c or FVB/N↔DBA, and other transformations are possible: please inquire. The investigator transfers to our facility a female mutant mouse of the initial strain. We mate that mouse to a wild-type mouse of the target strain to create N1 animals, which are mated again to the wild-type target strain to produce eight N2 males carrying the desired genotype. These males will be screened to identify the animal with the highest percent target strain genome. That animal will be mated to produce eight male offspring for the next screen, and screening will be continued in this manner through the N5 generation. Any N5 males with complete marker conversion will be returned to the investigator after individually testing the mice for specific pathogens including the mouse hepatitis virus. This process takes approximately fourteen months. We can also complete conversion of a hybrid mouse to either parental strain in less time and for a lower fee. Please note that only conversions between the noted pairs can be accomplished and the presence of any additional strains in the genetic background will confound the analysis. You will need to provide some information about the mutation, the genetic background of the animals, a genotyping assay, and some administrative details. Contact Mia Wallace (314) 747-4554 to make arrangements. All facility services are performed in the order received and kept confidential.

What are the initial and target strains (we can convert from/to 129SV↔C57Bl6, FVB/N↔C57Bl/6, SWR↔BALB/c or FVB/N↔DBA, other strains possible: please inquire).
initial strain: _____ target strain _____

PROJECT INFORMATION. Please provide answers to the following questions, if relevant. What is the mutation you are converting from one background to another? Is the mutation a transgene, knockout, natural mutation? What is the purpose for converting from one strain to another? Is there a phenotype? Are there any difficulties breeding these animals? What is the current strain background – is it known to be inbred or a strain mixture. Is any third strain present? Do you know the entire breeding history of the animal?

GENOTYPING. We will need to assay for the presence of your mutation/polymorphism, which is typically done by a PCR method. If your mutation contains common sequences (e.g. neomycin, *LacZ*), we may already have proven primer sets. If not, we require primers that work with our Universal Genotyping Assay. We will pick the primers if you provide the sequence of your mutation. Alternatively, you can pick the primers based on rules found at the assay protocol, which include 30mer primers with an amplimer of less than 400 bases.

BILLING INFORMATION

PI: _____

Department/Division & Dept. #_____

PI signature: _____

Bill to fund (number)*: _____

Accounting contact (name):_____

* Investigators who expect to receive a subsidy from dedicated Core grants, please check the appropriate box below and fill out the required additional forms. The additional forms for Digestive Diseases Research Core Center (DDRCC), Diabetes Research and Training Center (DRTC), and WashU Center for Kidney Disease Research (WUCKDR) investigators can be found on the respective websites. Approval of the project by the Core Director is required for subsidy. Subsidy cannot be guaranteed without approval BEFORE the service is performed.

DDRCC	DRTC	WUCKDR
☐	☐	☐

ANIMAL TRANSFER: You will need to transfer the original strain female to us at the beginning of the project, and we will transfer male animals that are completely converted to the target strain at the end of the project. Before beginning the service, we will need an Animal Studies Committee protocol number for your project, and a location to transfer the mice. The ASC protocol need only be for the analysis of the animals - the Core Facility has ASC approval for the conversion process. At the time of transfer, we will send you a transfer form from The Division of Comparative Medicine to sign.

ASC number_____

Transfer animals to building: _____ Room #: _____