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Serving research. Saving time.

Optimizing Your Assay Design Timeline

It's all about the quality of data and information provided

The more details, the better

Gold Standard = Sequence Data

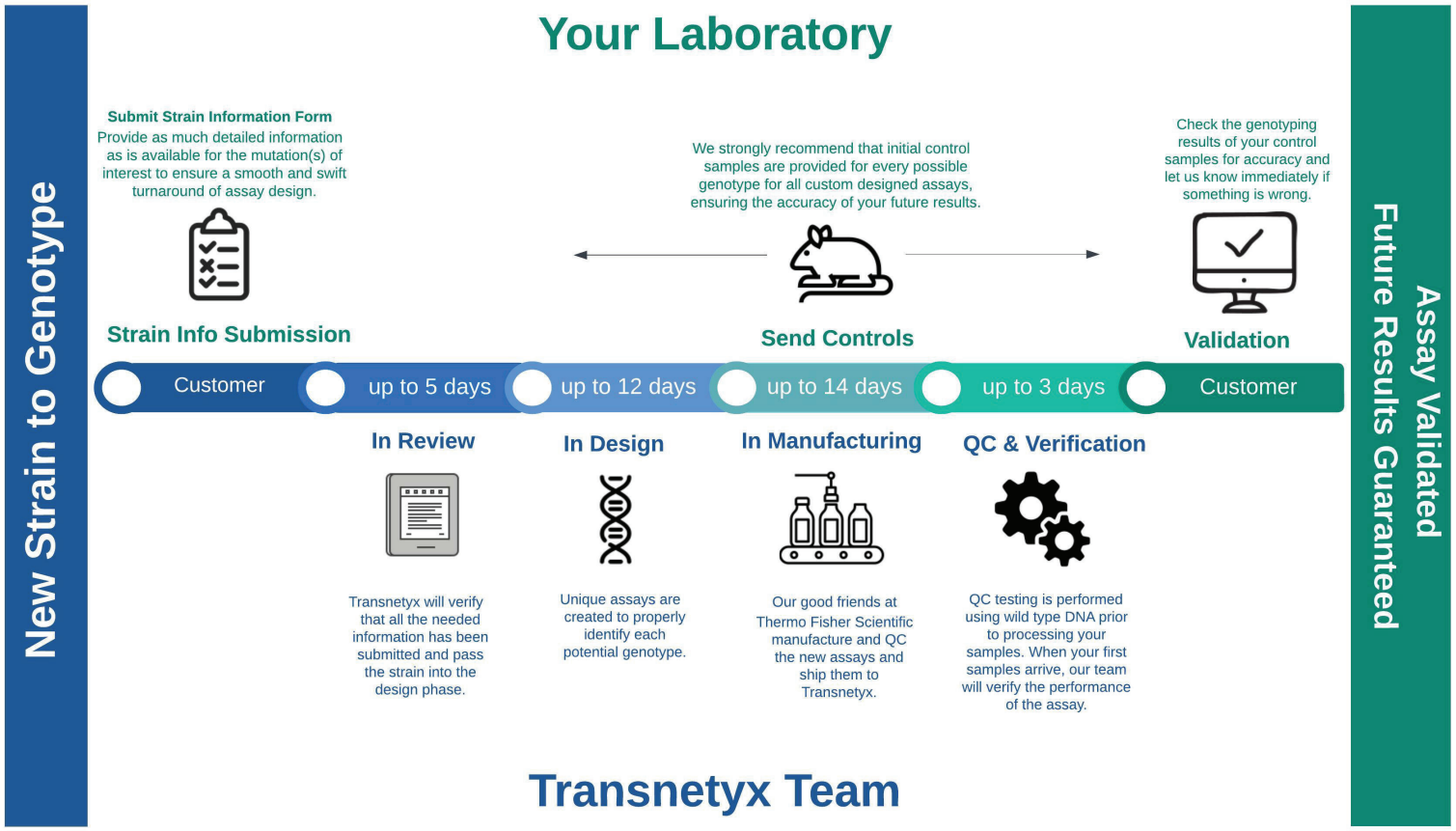
Anticipate our Crispr question catalogue

Submit individual alleles and use the cross strain function to make compound strains

Publications are only useful if they describe the genetics of the model submitted

Always submit sequencing data when available (in dna, gb, ab or text format)

Assay Design Timeline



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Strain Management- Best Practices

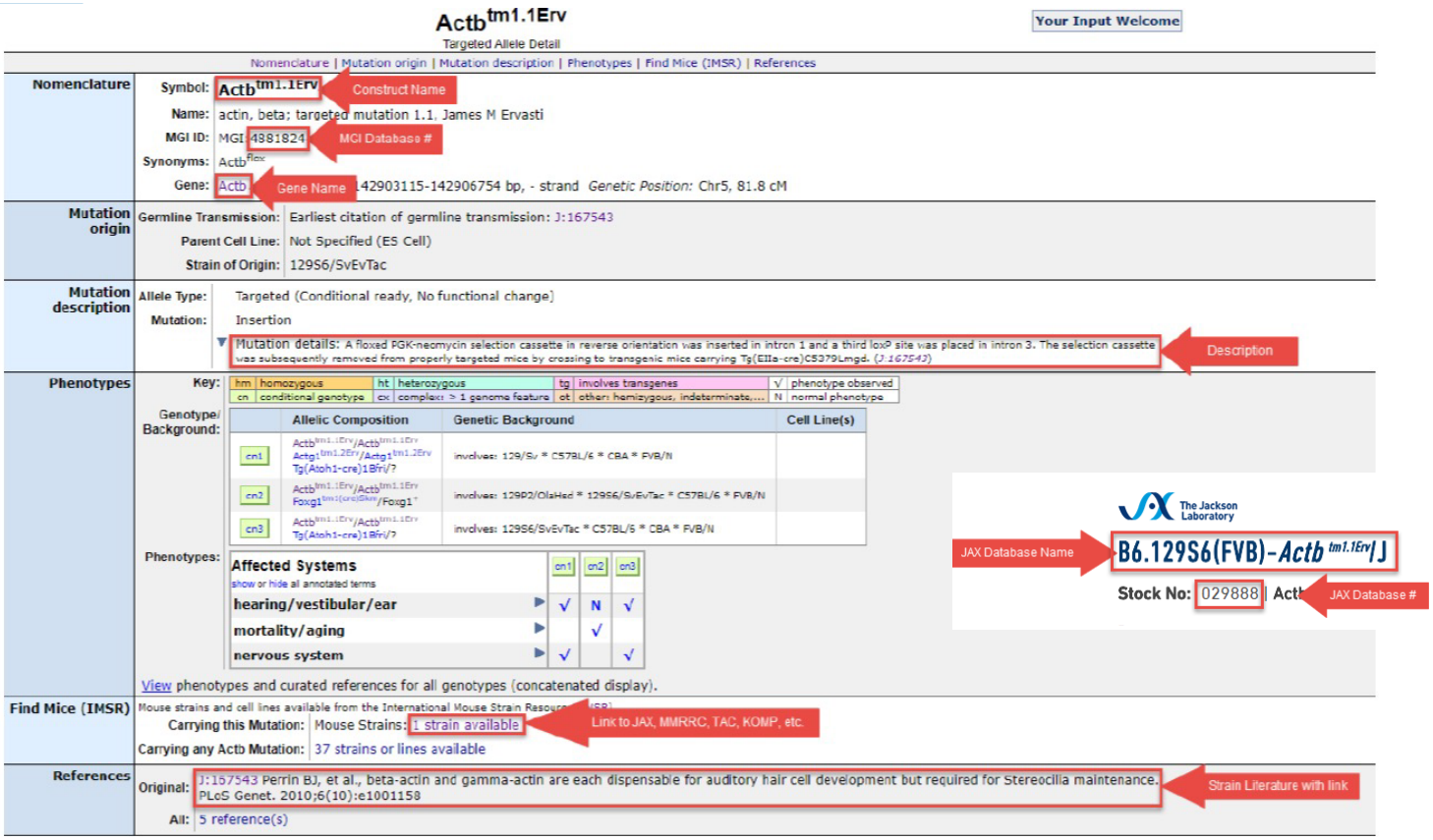
The more information you can provide the better

Submit a new strain for each allele even if your strain is already a compound strain. Once complete, use Cross Strain feature

Please do submit control samples for validation when possible

JAX/MGI ID		Allele	Strain name
N/A	Cre	Conditional Cre	Strain1
030420	Gt(ROSA)26Sortm1(CAG-birA,-EGFP)Joez/J	EGFP transgene (reporter gene)	Strain2
Use 'Cross Strain' function within your account to create compound strain			
N/A	Strain1/Strain2	Strain1 x Strain2	Compound1

Example of Relevant Data for SIF



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Submitting a Model Made by CRISPR

Since CRISPR technology often creates many different mutations, which can occur as a mosaic in founder animals, we require that all lines created by CRISPR be fully characterized before Transnetyx can begin developing an assay or genotyping. Characterization means you have sequenced your founders by Sanger or NGS and bred out following questions if you have completed the steps as outlined below:

1. Have you characterized the germline mutation for this CRISPR model?

2. Have you bred your founder animals to wild-type animals to generate G1 animals (animals with inheritable alleles present in the gametes to allow for germline transmission)?

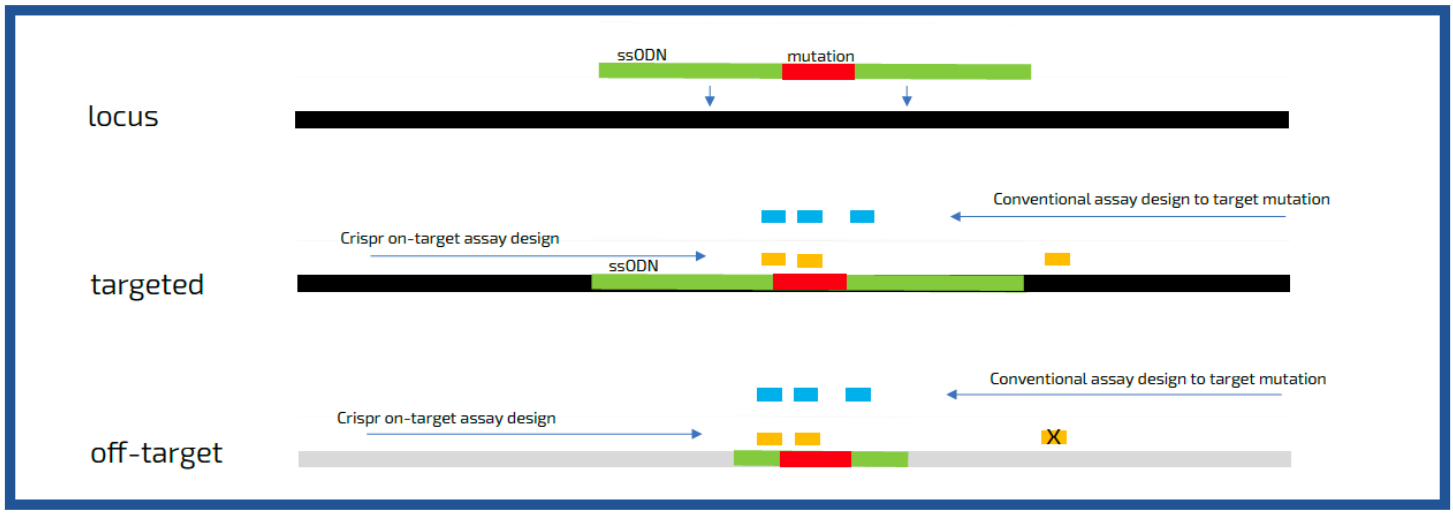
3. Have you bred out off-target allele variants, separating them from the desired mutation of interest?

4. Are you able to provide the exact sequence of the mutation created (should be a result of direct sequencing by Sanger or NGS and not an estimation or reconstruction)?

5. If an ssODN was used, please provide the sequence information. The assay may not be site-specific and could potentially give false positive results i we don't have this information.

Your response may be submitted via the 'Submit Required Information' link on the My Strains homepage or as an email attachment sent to help@transnetyx.com. We understand that the information required to answer the above questions is not always available. In these instances Transnetyx will proceed with assay design, with the customer accepting the associated potential risk of inaccurate results being reported for CRISPR lines where characterization cannot be confirmed.

Why it is important for us to know if your strain is a CRISPR



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Assay Design and Sequence Data

Shorten your timeline by providing sequence data

YX Automated Genotyping

Sequence Data provided in the initial Strain Information Form → Assay Design Process Begins

We send you a Sequencing Request Form (SRF). Strain status: "Requires Sequence Data"

- You have the Sequence Data but it was not provided initially → You return the SRF with Sequence Data → Assay Design Process Begins
- You don't have the Sequence Data but can provide a sample to be sequenced → You send us a sample for Sequencing purposes and complete the SRF with your sample information → We extract DNA and send it out for sequencing → Sequencing Data Reported → Assay Design Process Begins

Time

Days → Weeks