

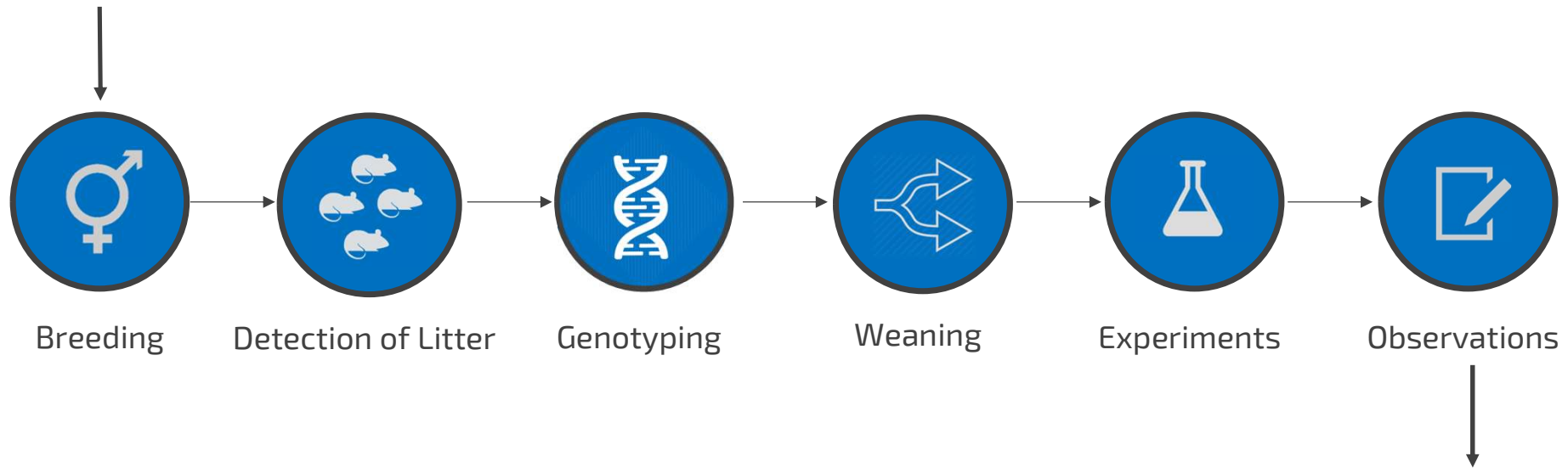
Transnetyx[®]
Serving research. Saving time.

Reproducibility leads
to Reduction

Zoltan Bogнар

Breeding and Experiment

Hypothesis



Breeding

Detection of Litter

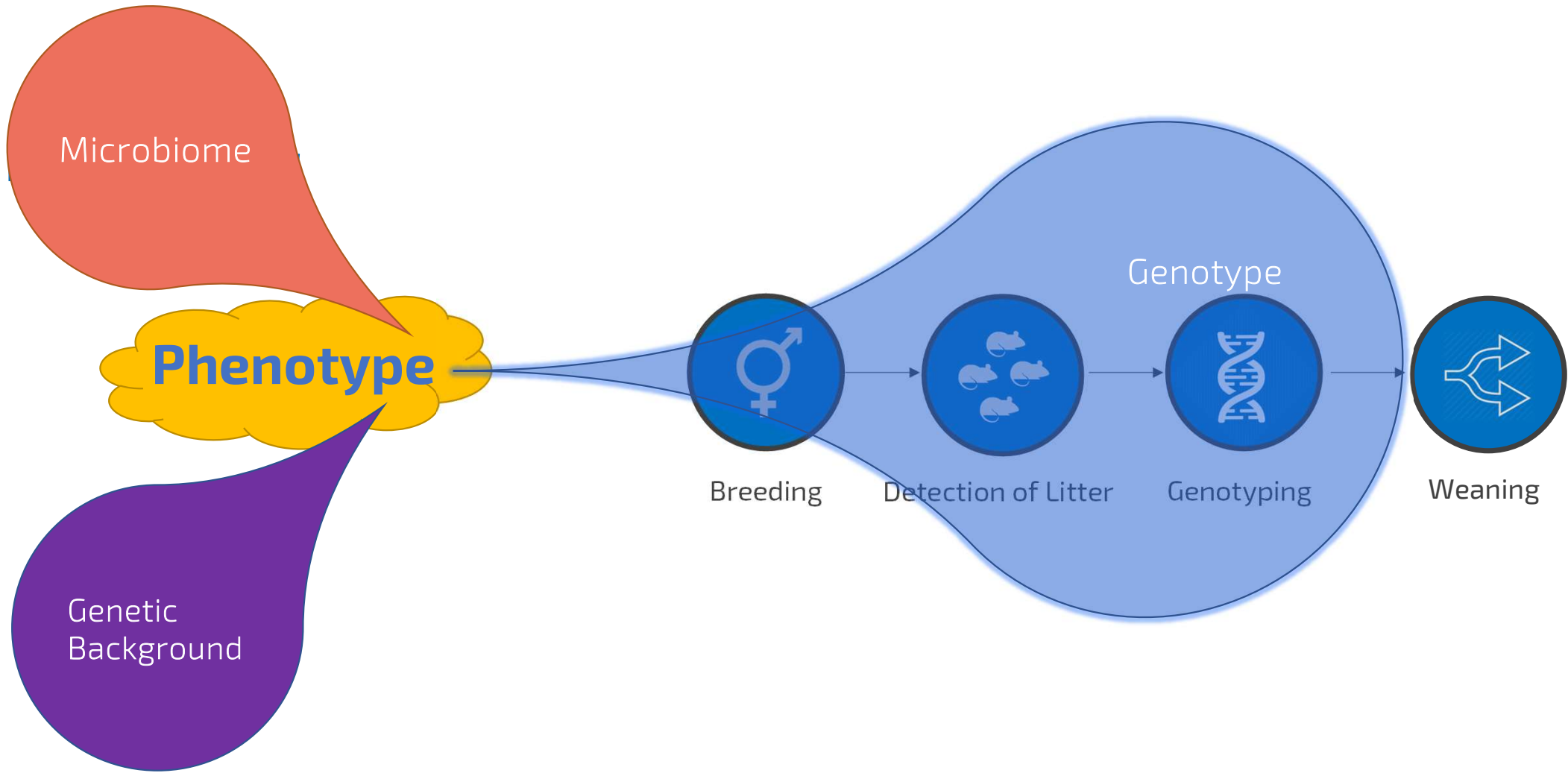
Genotyping

Weaning

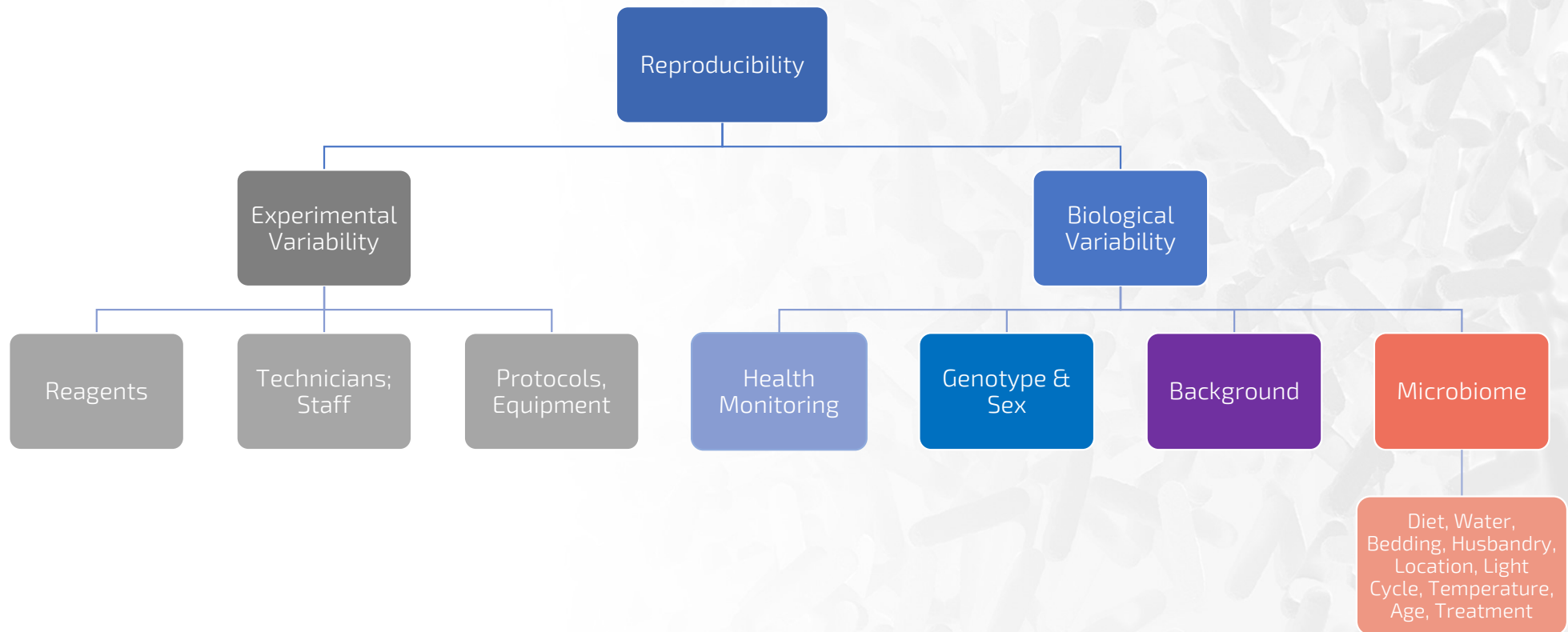
Experiments

Observations

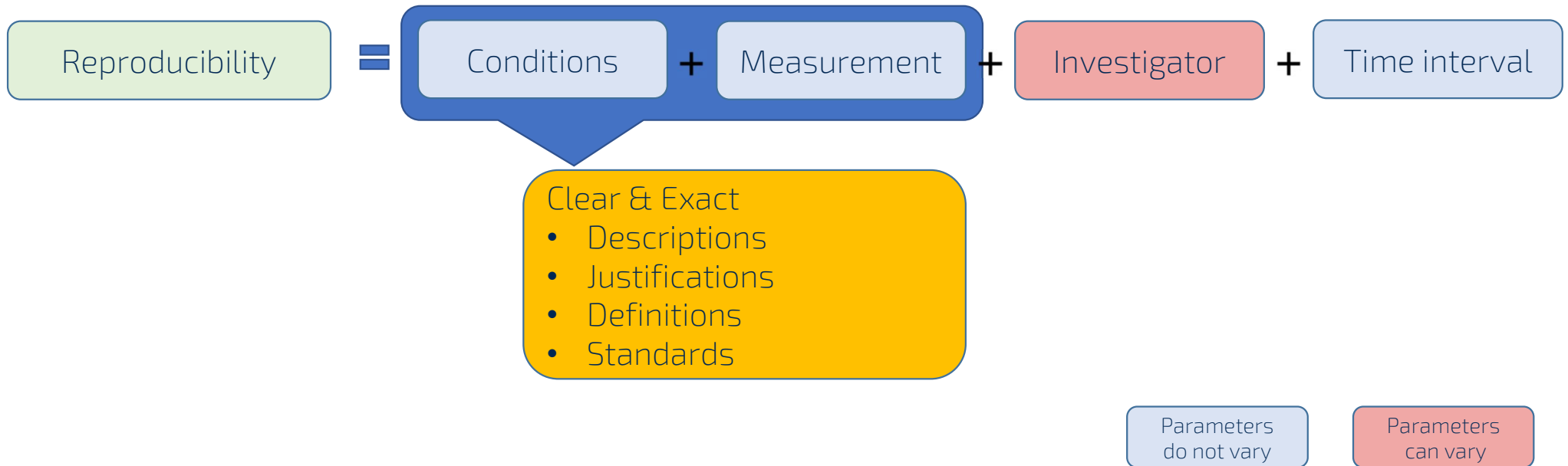
Results



Maximize research reproducibility



Research Reproducibility



Optimization

1. STANDARDIZATION IS THE 1ST STEP

- Breeding optimization only possible under standardized conditions.
- Precise characterization of breeding pairs
- Standard Processes – assuring Quality
 - Specialized and trained staff
 - Core Facility
 - Outsourcing

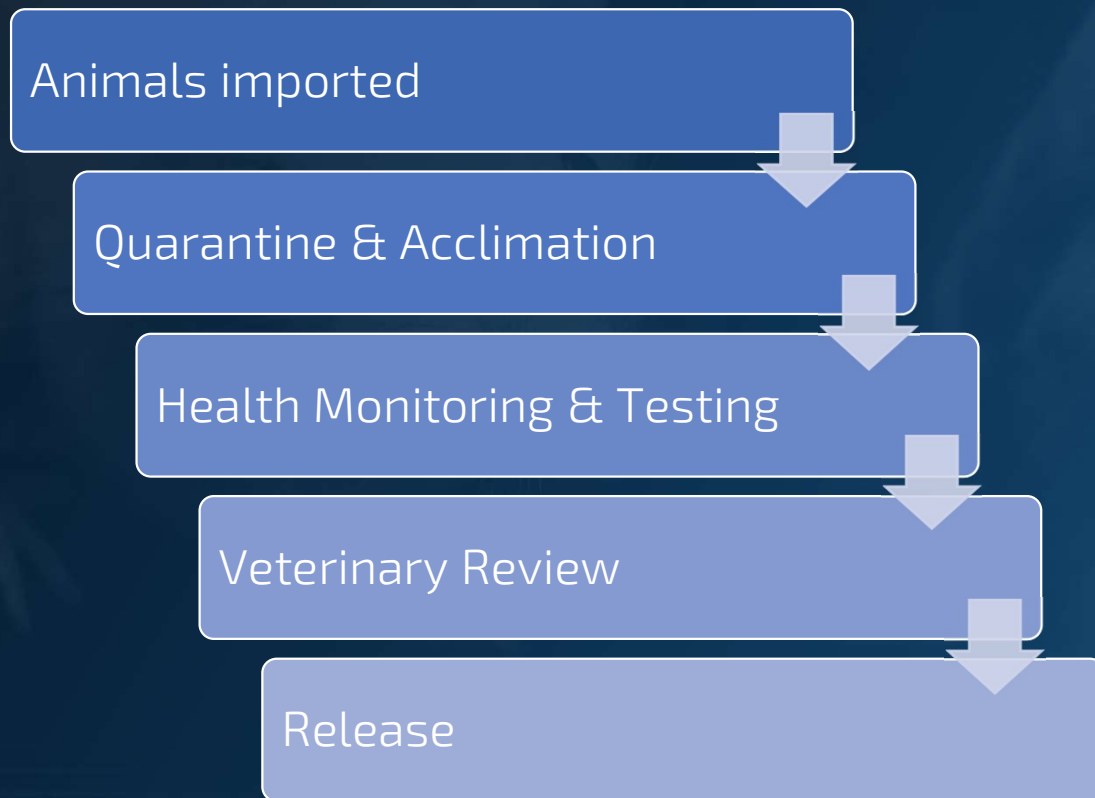
2. AUTOMATION & ALGORITHMS

- Individual preferences, employee variations must be excluded!
- Eliminating human error! (automation helps)
- Benefit from AI tools

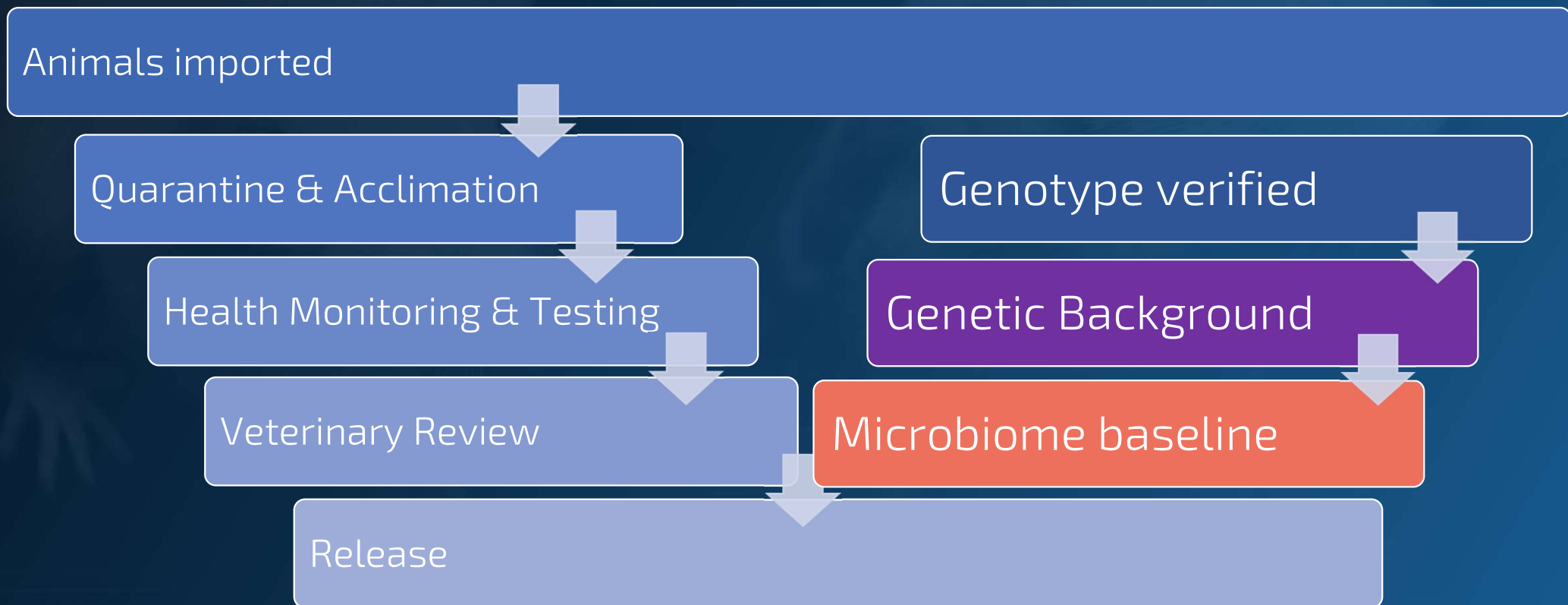
A blue-tinted photograph of scientists in a laboratory setting. The image shows several individuals in white lab coats, some looking at a microscope and others at documents. The text is overlaid in the center of the image.

Establishing a new colony is an exciting opportunity, but it can threaten research reproducibility.

Characterization starts at the animal facility



Characterization starts at the animal facility



Passport Program

Transnetyx gives you all the tools you need to establish a reproducibility baseline for your new colonies.

Transnet**YX**[®]



Automated Genotyping



Genetic Monitoring



Colony Management Software



Microbiome Analysis



With a single tissue sample

- Develop a high-quality, fully automated genotyping protocol
- Confirm your mutation
- Verify your background strain

Transnet**YX**[®]



Automated Genotyping



Genetic Monitoring



Custom assays designed and ready for the life of your colony.



TGs



KIs/KOs



SNPs



Conditionals



CRISPR

MiniMUGA – 10,000 SNPs, 241 strains

Check the integrity of your
background strain, *before*
your breeding gets off-track



Data transparency

Store and manage *all* your data in a dedicated software

TransnetYX[®]



Automated Genotyping



Genetic Monitoring



Colony Management Software



Microbiome Analysis



TransnetYX[®]
Colony

Organize your colony data.
Integrate your genotyping results,
automatically.
Reduce cage counts.
Save resources.
Save time.

Baseline

establish the baseline
microbiome of your
imported animals

TransnetYX[®]



Automated Genotyping



Genetic Monitoring



Colony Management Software



Microbiome Analysis



No dry ice

Collection kits keep your samples stable at ambient temperature



Shotgun Metagenomics

Obtain data on all organisms (not just bacteria), with strain-level insights



Interactive results

Best-in-class bioinformatics powered by One Codex. Enjoy comprehensive, intuitive results in 2 weeks.

Define your colony's microbiome and detect shifts that can jeopardize experiments

CHECKING IN

Establish a baseline for your new arrivals now —
and protect reproducibility later.

TransnetYX[®]
Serving research. Saving time.



PASSPORT PROGRAM

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TransnetYX[®]

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John Doe

NEW ARRIVAL ITINERARY



**YOUR NEW ARRIVALS
COULD LEAD TO YOUR
NEXT BREAKTHROUGH**

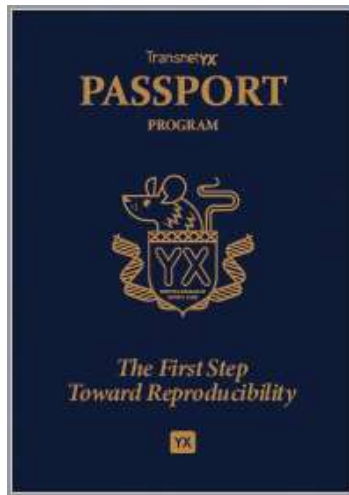


**LET'S MAKE SURE
EVERYTHING'S IN ORDER**



PASSPORT PROGRAM//AUTOMATED GENOTYPING//GENETIC MONITORING//MICROBIOME//COLONY

TransnetYX[®]



**WELCOME TO THE
TRANSNETYX
PASSPORT PROGRAM**

Every traveler needs the right documentation. Imported animals can experience changes in habitat or diet that affect their eligibility for research. That's why we've created the Passport Program. We'll help you document key information for imported animals to make sure they don't threaten reproducibility.

This program provides everything you need to make sure your animals fit your research. We're offering you heavily discounted trials of our most popular services, giving you the data you need to assure viable results and reproducibility.

**ACTIVATE YOUR
PASSPORT FOR \$250**

Your passport gives you access to the following services (an \$800 value!):

YX Automated Genotyping	4 SAMPLES
YX Genetic Monitoring	4 SAMPLES
YX Microbiome	
YX Colony	

Take your research further, faster.

OUR MISSION

is to protect the reproducibility of your research. By automating time-intensive tasks, you can focus on discovery. We can help streamline processes, reduce cage costs, and improve the efficiency of your lab's communication so that you can take your research further, faster.

- Automated Genotyping
- Genetic Monitoring
- Microbiome
- Colony

TRANSNETYX PASSPORT PROGRAM

STRAIN NAME _____

ORDER ID 01 _____

ORDER ID 02 _____

ORDER ID 03 _____

ORDER ID 04 _____

To get started, simply submit your Passport Program code and contact information on the form at this address: <https://forms.gle/WhoeQpSMU8HCN1Y0>. Your Passport Program support team will be in touch within 24 hours to be sure you have the support you need, and we'll make sure your discount is properly applied across your orders.

YX Automated Genotyping

Confirming the genotypes of your animals before breeding is critical to the success of a new colony. Our automated genotyping service includes custom assay development so that you have a high-quality, independent protocol for the life of your new line.

SAVE TIME AND MONEY WITH AUTOMATED GENOTYPING.

FAST 72-hour turnaround time	EASY Average order time is less than 5 minutes Results accessed online	ACCURATE 99.97% accuracy Real-time PCR results, guaranteed
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Check your itinerary for information on how to submit your samples or learn more at transnetyx.com/genotyping

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GET BACK TO DISCOVERY

WE'LL HANDLE THE GENOTYPING. YOU MAKE THE BREAKTHROUGHS.

We lead the world in automated genotyping, with over 25 million samples processed and more than 1200 citations

YX Genetic Monitoring

Reproducible research requires a consistent genetic background. Our Genetic Monitoring service tests over 10,000 SNPs across 240 inbred strains to protect your colony and your research.

RESPONSIBLE. REPRODUCIBLE. REASONABLE.

Our new MinMUGA panel, powered by Neogen, is the best way to confirm strain purity or identify mixed strains:

Eliminate genetic variability	Establish your breeding cages with confidence	Backcross mixed strains in half the time using speed congenics
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Check your itinerary for information on how to submit your samples or learn more at transnetyx.com/monitoring

6

THE RIGHT STRAIN FOR YOUR RESEARCH WITH LESS STRAIN ON YOUR BUDGET.

Most comparable genetic tests run for hundreds of dollars. We work with you to find the right strain for your budget.

WANT TO LEARN MORE?

Take a tour of our website or email help@transnetyx.com

YX Microbiome

Movement of animals to a new location can change their gut microbiome and phenotype. By defining the baseline microbiome of your new colony, you secure the power to detect shifts if issues arise with reproducibility.

We leverage shallow shotgun whole genome sequencing to provide you with substrain-level insight.

EASY MICROBIOME ANALYSIS

Comprehensive service, from sample to publication-quality results	Gold-standard bioinformatics	User-friendly, interactive results
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Check your itinerary for information on how to submit your samples or learn more at transnetyx.com/microbiome

10

DEEP INSIGHT INTO SHIFTING MICROBIOMES

Shotgun sequencing provides the data you need so you don't have to go with your gut.

EASY-TO-USE DATA WITH BIOTABASE™

Get immediate, actionable results using our intuitive data analysis tools.

WANT TO LEARN MORE?

Take a tour of our website or email help@transnetyx.com

YX Colony

Adding animals to your colony means managing more data, from consolidating cages and setting up breeders, to tracking genotypes and experimental cohorts.

With our FREE, streamlined colony management software, you can ditch the Excel spreadsheets and simplify your breeding. Transnetyx Colony allows you to access, update, and share breeding data in real time.

BREED SIMPLY

Simple colony management software with cloud-based data storage.

WANT TO CHAT?

Carrie LeDuc
cleduc@transnetyx.com
or email help@transnetyx.com

Check your itinerary for information on how to submit your samples or learn more at transnetyx.com/colony

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BREED SIMPLY

Simple colony management software with cloud-based data storage.

WANT TO CHAT?

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Passport Program

\$250

Available through Health
Surveillance & Monitoring
veterinarian

TransnetYX[®]



Automated Genotyping

4 samples



Genetic Monitoring

4 samples



Colony Management Software



Microbiome Analysis

4 samples



Address the unseen variables that can cause experimental outliers, changed phenotypes, or loss of phenotypes.

The background of the slide is a dark blue gradient. It features a faint, semi-transparent image of laboratory glassware. In the upper half, several test tubes are arranged in a row, and in the lower half, several petri dishes are visible. The text is centered in the middle of the slide.

Fully characterize colonies *before*
research gets off-track.

A large, multi-story house with a blue overlay. The house has a prominent gable roof, multiple windows, and a stone base. The text is centered over the house.

You wouldn't buy a house
without first doing an inspection.

Thank you

zbognar@transnetyx.com