

Transnet^{YX}[®]

MyColony

Transnetyx and Vanderbilt

Transnetyx has been an established partner at Vanderbilt for eight years, consistently serving over 30 Vanderbilt labs with their genotyping and Colony management needs.

Transnetyx processed over 30,000 samples at Vanderbilt in 2022.

Transnetyx Labs process an average of 90,000 samples per week with the ability to expand due to automation.

We are excited to announce the Vanderbilt MyColony Program.

To register your account please go to www.transnetyx.com

Please scroll down to view the FAQs.



Frequently Asked Questions

Who owns the data in Quick Order (Assay Development) and Colony (Genotyping orders, results, and colony management)?

You own the data.

If Transnetyx goes out of business, will I be able to retrieve my data?

Yes. All data is backed-up and will be provided to all researchers that we serve.

Is the software as easy as my Excel spreadsheet?

Colony is different from Excel but not more difficult than Excel. Excel is a spreadsheet – Colony is a tool. Options in Colony far exceed the capabilities that Excel provides. Please know that Colony has two main views: List View and Cage Map View. Starting in List View may feel more comfortable because it mimics basic Excel views. As you advance in Colony, you'll naturally become fonder of advanced features like the Map View.

Is the software user friendly, easily accessible, intuitive, and flexible enough to conform to individual lab nomenclature and notes?

User Friendly: **YES**

Easily Accessible: **YES**

Intuitive: **YES**

Flexible: **YES**

Researchers have no limits to the number of people that can be added to a GROUP (lab account) in Colony. Processes can be set to fit your lab's specific needs. In Colony, you will dictate strain nomenclature and can input notes, task reminders, animal use cage (ex: experimental), treatments, and more.

Are there other companies that offer similar services and, if so, have we explored partnering with them?

There are other companies that offer genotyping services; however, not **fully automated, guaranteed accurate genotyping services with a guaranteed 72-hour turn around time**. Transnetyx is the only laboratory that does not require human hands – preventing the threat of human contamination. Transnetyx is the only company providing free assay development for real-time (qPCR with TAQman probe) assays. Furthermore, Transnetyx is the only company that offers genotyping and genetic monitoring using the same biopsy. Vanderbilt only agreed to partner with Transnetyx after confirming their industry reputation and recognized performance.

Where is Transnetyx located?

Transnetyx is located in Memphis, TN where it processes an average of 90,000 samples/week from leading research institutions all over the globe.

What happens if Transnetyx makes a mistake?

Transnetyx guarantees accurate results in 72-hours or less. If there are results concerns, Transnetyx will immediately retest samples at no cost to the lab. If required, Transnetyx will redesign/optimize the initial assay designed. Vanderbilt will not be charged until accurate results are produced. In short, Transnetyx will be accountable for errors resulting from assay development and/or results review.

How stable is the company?

Transnetyx is a very stable company established in 2004 that has processed over 35 million samples globally. Transnetyx processed over 4.3 million samples in 2022, representative of over 10% growth in sample processing since 2021.

In addition to their core Genotyping and Colony offering, Transnetyx provides:

Genetic Monitoring: <https://www.transnetyx.com/monitoring>

Microbiome: <https://www.transnetyx.com/microbiome>

Artificial Mouse Intelligence (AMI) – an enhancement to Colony: <https://www.transnetyx.com/ami>

Animal Research and Compliance Software: <https://www.a-tune.com/>

24-Hour Tissue Delivery: <https://www.transnetyx.com/tissue>

What happens if Transnetyx goes out of business?

Worst case scenario is that labs go back to performing their own genotyping and Transnetyx contract costs are removed from the annual per diem rate calculations. You will still have lifetime access to your data.

Is there a financial relationship between VUMC or VU and Transnetyx?

Outside of the agreement to help Vanderbilt to serve your research, there is not a financial relationship between VUMC or VU and Transnetyx.

Will Transnetyx design probes for mutations that have not been published in literature?

Transnetyx will genotype all lines except founder lines. Transnetyx can genotype F1 generation models if the correct mutation has been confirmed in the founders. Please note that Transnetyx is doing beta-testing with Vanderbilt's VGER in this area.

Can I get my tissue (tail, ear punch, liquid DNA, etc.) back?

Transnetyx first lyses the tissue received and purifies the DNA. 1/3 of the lysate is utilized for genotyping and the other 2/3 is stored for up to six months. When testing a strain for the first time, Transnetyx provides five free samples for any strain that has been custom designed. This is an excellent opportunity to validate the assay(s) put in place as opposed to having to manually genotype side-by-side.

Researchers can request the lysate to be sent back; however, routine/repeated requests will incur a charge.

How long does Transnetyx keep my tissue?

Transnetyx stores tissue for up to six months.

Sometimes I need to retest – how does that work?

You can request retests online.

If there is a results discrepancy, do I have to pay for a retest?

No.

What is the average actual turnaround time?

Transnetyx guarantees accurate results in 72-hours or less; however, average completion is between 48-56 hours.

How does Transnetyx use qPCR to determine homozygosity?

At Transnetyx, we exclusively operate a high-throughput, real-time PCR-based system for genotyping. Our TaqMan assays target specific sets of DNA sequence in either the targeted or wildtype alleles. This means that zygosity for a locus is not determined through quantitative analysis, but by testing for each potential allele that could be present at that locus.

This means that randomly integrated transgenes (without a known integration site) will not have zygosity reported, as a single presence/absence assay will be run. We can provide you with the raw data for these transgenes which normalizes the probe signal back to a single copy housekeeping gene. You may use this for your own interpretation of copy number; however, we cannot guarantee that this raw data will be able to provide you copy number.

Are mice housed at the VA eligible?

Yes.

Will there be a tag center in the VA?

Researchers with animals in the VA will be provided with packaging to submit samples directly back to Transnetyx. There will not be an additional cost.

There are currently two TAGCenters at Vanderbilt University. One of the TAGCenters is located in the **MCN Facility Entry - 7th Floor just outside of the animal care facility**. Elevators 20 & 21 will take you directly to the unit. The shipping days for this TAGCenter are **Monday by 3:00 PM and Wednesday by 3:00**. The newest TAGCenter is located in the **PRB ~ Located outside the PRB animal facility to the left of Room 801**. The shipping days for this unit are **Tuesday by 3:00 PM and Thursday by 3:00 PM**.

Is 24-hour service available?

Yes, for an additional charge.

Can I opt out?

No. Effective July 1, 2023, existing cages of animals ordered directly from a vendor and not bred for subsequent experimentation (as well as future orders of a similar nature) will be assessed the Standard Mouse Per Diem Rate. Existing and new cages of animals bred or born at Vanderbilt will be assessed the MyColony rate whether or not Transnetyx genotyping services are used. This decision was made to encourage the use of available services (automated genotyping and mouse colony management software) which have consistently been shown to reduce genotyping errors/cost, improve breeding colony productivity, and utilize limited housing space more efficiently. These outcomes are essential to improving the rigor and reproducibility of Vanderbilt research studies using mouse models and allow for more responsible use of animals and resources.

Why do I have to pay for services I don't want to use?

Use of MyColony (automated genotyping and mouse colony management software) has consistently been shown to reduce genotyping errors/cost, improve breeding colony productivity, and utilize limited housing space more efficiently. These outcomes are essential to improving the rigor and reproducibility of Vanderbilt research studies using mouse models and allow for more responsible use of animals and resources.

What mouse per diem rate will my mouse cage receive?

My IACUC protocol includes experiments that involve breeding genetically engineered mice (GEM) and C57BL6/J control animals. Offspring may or may not be genotyped and are used in subsequent experiments. Occasionally I order mice from a vendor to refresh my lines (GEMs and controls).

Rate charged for cages of GEM bred at Vanderbilt: **MyColony Per Diem Rate**

Rate charged for cages of control animals bred at Vanderbilt: **MyColony Per Diem Rate**

Rate charged for cages of mice ordered from a vendor to refresh lines: **Standard Per Diem Rate** for the life of the cage card. The MyColony rate will be applied to cages of offspring as pups are generated and weaned into new cages.

Rate charged for cages of experimental mice generated from breeding conducted at Vanderbilt: **MyColony Per Diem Rate**

My IACUC protocol includes experiments that involve ordering animals directly from a vendor and using them in "all-in/all-out" experiments (e.g. nude mice ordered in, injected with tumor cell line, and euthanized after 6 months). No breeding at Vanderbilt is conducted to generate the experimental animals or as part of the experiments.

Rate charged (throughout duration of experiment) for cages of experimental mice ordered from a vendor: **Standard Per Diem Rate**

My IACUC protocol includes both types of experiments described above. Will I have to pay the MyColony Rate for all my cages?

No. The rate applied will depend on whether the cage houses animals generated (bred) at Vanderbilt or procured directly from a vendor. A single IACUC protocol may be charged the two different rates. The cage card identifies which rate applies to which cage.

Cage Card Request form:

Choose the Mouse Cage Card Rate that Applies:

MyColony Mouse: Use for animals generated from breeding conducted at Vanderbilt.

- This includes: GEM bred animals, experimental animals, and control animals bred at Vanderbilt.

Standard Mouse: Use for Vendor-purchased Animals

- Requisition number required.

- Maximum number of cage card cannot exceed the total number of animals ordered.

* must provide value

MyColony Mouse

Standard Mouse

reset

Mouse Order Requisition Number:

* must provide value

Colony FAQ

What is the hardware compatibility for use at the cage level?

All animal facilities are installed with Wi-Fi boosters and accessibility currently is very reliable. MyColony is available at the cage level via a web browser using any device. The MyColony mobile app is available for personal owned devices.

It is important to note that VUMC owned devices (iPads) are not approved currently. However, we are in the process of approving the utilization of the Colony mobile app.

Can sequencing, genotyping results, and miscellaneous notes be manually entered into Colony?

Yes. Our strain setup has the option for "Gene Mutations" that will drive how the genotypes are displayed throughout Colony. A user can enter an MGI ID, if available, and Colony will populate all the relevant information onto the "gene". The user can also create a custom mutation or add an existing mutation to a strain that may be set up on another strain. Colony's gene set up allows for things like zygosity, sex-linkage, as well as advanced transgenes to be tracked. There is also a space within the strain information section for a description, as well as labels and notes on individual mice.

Will Transnetyx assist with export of data from other mouse colony management software?

Yes. Colony by Transnetyx has the option to manually import mice records; however, it also has a bulk upload template feature allowing for easier mass import. During training sessions, Transnetyx will teach the Import Tool in detail, provide training, and assist with technical inquiries. **How is data stored and backed-up?**

Data Management is hosted on premises at the Transnetyx data center in Memphis, TN and is GDPR Compliant. Transnetyx leverages several platforms to ensure data is backed up and restorable according to policy (hourly, daily, weekly, monthly roll ups). The backup methodology includes geographic redundancy for disaster recovery situations. See Colony IT Informational slides for details.

Is the Colony and Artificial Mouse Intelligence (AMI) software useful for investigators who don't breed or do genotyping?

Yes. Colony and AMI can be used to track basic experimental data, allow for cohorts to be planned and tracked, and multiple users to view and update their animal work in real time. This is doable across all strain types including inbreds (and others that do not get genotyped), as well as non-breeding mice.

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For additional resources you can visit the following links:

Colony Support: www.transnetyx.com/support/categories/2

Onboarding Guide: www.transnetyx.com/support/categories/2/subcategories/12

You can also email us directly at help@transnetyx.com