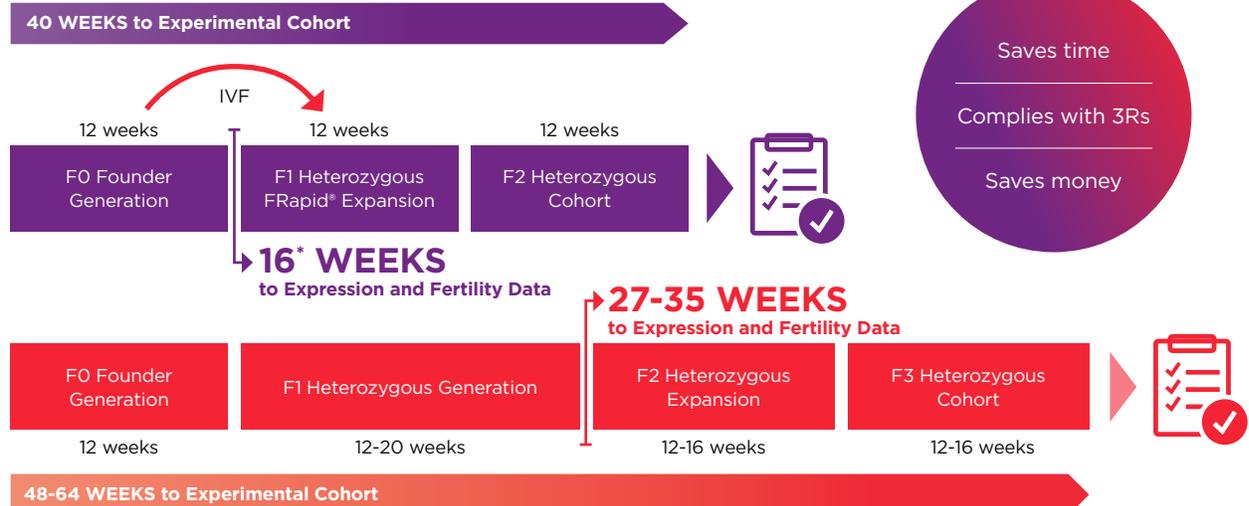


ExpressMODEL[®]: Random Integration Transgenic (RITg)

A Novel Approach to Accelerate the Timeline to Results

OBTAIN RESULTS AT LEAST 3 MONTHS FASTER
THAN THROUGH TRADITIONAL APPROACHES

ExpressMODEL[®]: RITg



Traditional Approach

*Approximately 4 weeks until expression data from IVF, qPCR, and RNA is available.

BENEFITS

- ▶ Reduce the timeline to transgene expression and fertility data by 3-5 months compared to the traditional approach to breeding founder animals and characterizing F1 offspring
- ▶ Predictable and accelerated timelines through *in vitro* fertilization (IVF) versus natural breeding
- ▶ Customize the cohort size at the desired health status to meet your research needs
- ▶ Avoid the cost and time constraints of breeding and characterizing multiple founder lines

Get in touch for more information about our products and services.

US: 1-888-822-6642 | EU: +45 70 23 04 05 | info@taconic.com | Learn more at: taconic.com

THE COMPLETE SOLUTION

MODELS TO DRIVE DRUG DISCOVERY

Taconic Biosciences is uniquely positioned to enable drug discovery through animal models by being the only company that partners with customers to provide expertise, quality, and availability, along with downstream services:

- ▶ Expertise at every step
- ▶ Highest quality standards in the industry
- ▶ Availability and access to drive global research

MODEL GENERATION SOLUTIONS

Taconic's Model Generation Solutions empower our customers with a unique combination of capabilities, specifically tailored to each individual discovery program:

- ▶ Most experienced model generation and breeding company
- ▶ Most comprehensive toolkit
- ▶ Exclusive programs
- ▶ Concierge approach to partnering with customers

COLONY MANAGEMENT SOLUTIONS

Taconic's fully-integrated colony management solutions bring innovative models from design to study-ready cohorts with unprecedented speed and transparency:

- ▶ Most experienced model generation and colony management company
- ▶ The complete toolkit
- ▶ Colony management solution process
- ▶ Partnering with our customers
- ▶ Expanded applications and opportunities

YOUR PARTNER

WHAT WE DO

Taconic Biosciences is a fully-licensed, global leader in genetically engineered rodent models and services. Founded in 1952, Taconic provides the best animal solutions so that customers can acquire, custom-generate, breed, precondition, test, and distribute valuable research models worldwide.

WHO WE ARE

Taconic has created a unique ecosystem of experts to provide our customers with the best animal model solutions. Whether it is choosing the right model for your study, designing a custom model, creating an efficient breeding plan, or providing expertise in critical support functions like veterinary science, genetics, and embryology; Taconic is ready to help you drive your research from idea to cure.

CONTACT US

To get started, contact one of our customer service team members. Contact us at info@taconic.com.

VISIT TACONIC.COM

There is so much more to learn. Visit taconic.com to see our full breadth of animal model solutions and valuable resources.

ExpressMODEL®: RANDOM INTEGRATION TRANSGENIC (RITg)

Model generation through pronuclear injection to create random integration transgenics continues to be a favored path to quickly generating "gain of function" models that express an ectopic gene and pass the trait onto their offspring. However, because genomic integration site and copy number of the transgene is random in each injected embryo, each resulting founder line is unique and requires extensive transgene expression analysis to determine if it will perform to the desired specifications (e.g. expression levels and tissue distribution). As a result, common practice is to separately propagate each line to generate offspring for extensive transgene expression studies. These data are then used to determine which founder line(s) to continue with. The cost and time investment of the downstream breeding and characterization of multiple founder lines can heavily outweigh the original cost to generate the lines.

To mitigate the risks on project timeline and budget, Taconic now offers ExpressMODEL®: Random Integration Transgenic (RITg), a novel approach that provides the opportunity for transgene analysis in founder animals. In essence, sperm from founder animals are collected and subsequently analyzed, allowing for transgene expression and fertility data to be available at least 3 months sooner than through traditional approaches and accelerating the timeline to the generation of experimental cohorts.

How does ExpressMODEL®: RITg accelerate timeline to results?



Practice breeding of 8-week-old founder males (FO)



Sperm cryopreservation of 10-week-old founder males (FO)



In vitro fertilization (IVF) to determine the fertilization rate



Genomic qPCR for the transgene using sperm DNA to determine the presence and quantity of the transgene



Preservation of specified tissue sample(s) in RNAlater



Expression analysis of the transgene using qRT-PCR on the RNA extracted from specified tissue(s)



Analysis of IVF, qPCR, and RNA expression data to determine the best founder(s) sperm for line generation through FRapid® expansion