

# Model Creation Services – Europe

## ES Cell Mutagenesis for Mice

Effective research depends on finding the most relevant model for your application. When your project calls for embryonic stem (ES) cell technology, our scientists and the functional genomics leaders at PHENOMIN-ICS offer an integrated solution for the generation and analysis of your mouse transgenic lines.

Our partnership with PHENOMIN-ICS combines the custom ES cell design capabilities with our own cutting-edge microinjection and breeding services to create the right mouse model for your research.

With the ES cell mutagenesis technology, our microinjection experts inject the custom ES cells designed and prepared by PHENOMIN-ICS or IMPC mutant clones directly into blastocysts, effectively bringing your *in vitro* research model to life.

Our experts will work with you to determine the best approach to customise your model to suit your research exactly.

ES cell methods may include:

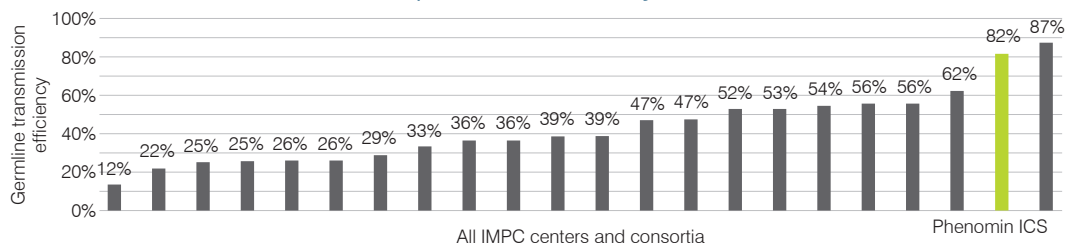
- The use of proprietary BALB/cN and C57BL/6N
- Optional use of CRISPR to boost the frequency of gene replacement
- The use of an IMPC ES cell mutant resource

Any type of mutation is amenable to our technology:

- **Knock-out:** constitutive, conditional, tissue-specific or inducible
- **Knock-in:** point mutation, complex and multi-allelic mutations, tag/reporter, targeted transgenesis in Rosa26 & HPRT, inducible or Cre models, humanization and more.

In addition, you can request for derivation of your own ES line.

### IMPC Mouse Generation Pipeline Efficiency



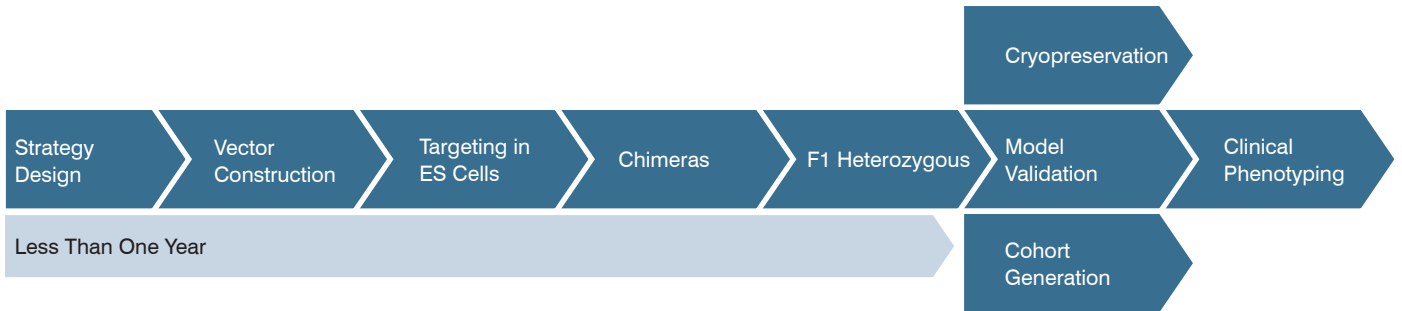
PHENOMIN-ICS is considered a gold standard for successful germline transmission.





## End-to-End Capabilities

From strategy design to functional validation, we are able to manage your entire custom model creation with optimum efficiency.



## Why Charles River and PHENOMIN-ICS?

When you work with Charles River, you can expect comprehensive service and a single point of contact for your project from start to finish, even when your project includes technology delivered by our partners.

Our shared commitment to scientific excellence and personal attention means that we guarantee:

- Generation of chimeras (when a proprietary line is used)
- ES cell germline transmission (when a proprietary line is used)
- Project timelines
- Confidentiality
- Exclusivity of intellectual property
- Breeding under VAF+ /SOPF
- Secure animal delivery worldwide

BASIC RESEARCH

DISCOVERY

SAFETY ASSESSMENT

CLINICAL SUPPORT

MANUFACTURING SUPPORT

  
charles river

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