

# Model Creation Services – Europe

## CRISPR/Cas9 Genome Editing for Mice and Rats

Effective research depends on finding the most relevant model for your application. When your project calls for CRISPR/Cas9 technology, our scientists and the functional genomics leaders at PHENOMIN-ICS offer an integrated solution for your custom *in vivo* research model.

Our partnership with PHENOMIN-ICS combines high-efficiency CRISPR tools with our own cutting-edge microinjection and breeding services to design and create the right mouse or rat model for your research. Our team of scientists can guide your development and selection from a large genetic background panel for mice (C57BL/6N, BALB/cN, 129S2/SvPas, FVB/N, etc.)

With the CRISPR/Cas9 technology, our microinjection experts inject genetic material designed and prepared by PHENOMIN-ICS directly into zygotes, effectively bringing your custom *in vitro* research model to life. Depending on allele complexity, we can obtain your founders in as few as 3 to 4 months.

### Do I Need ES or CRISPR Genome Editing?

Our model genetics experts will help you choose the most appropriate technology for your project. When needed, a combination of techniques may be applied to achieve the desired result.

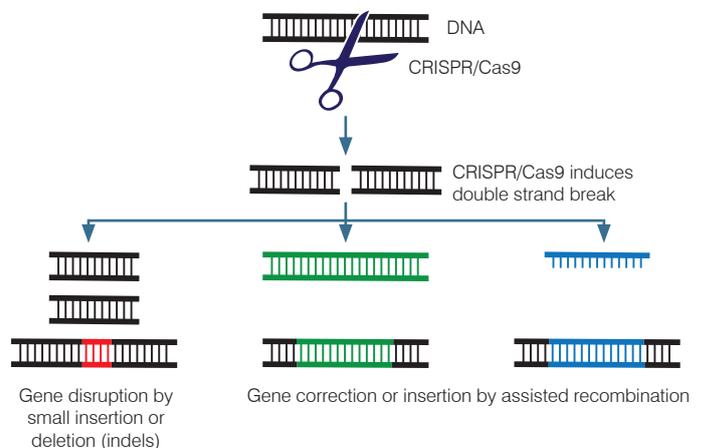
### Interested in Polygenic Disease?

We can perform targeting in your own transgenic line to insert additional genetic modifications.

### Chromosome Engineering in Zygotes

Structural variants (SVs) are less common than single nucleotide polymorphisms and indels in the population, but collectively account for a significant fraction of genetic polymorphism and diseases. PHENOMIN-ICS scientists have developed a new CRISPR-based approach that allows us to generate these disease models in record time, greatly reducing the overall cost of your project.

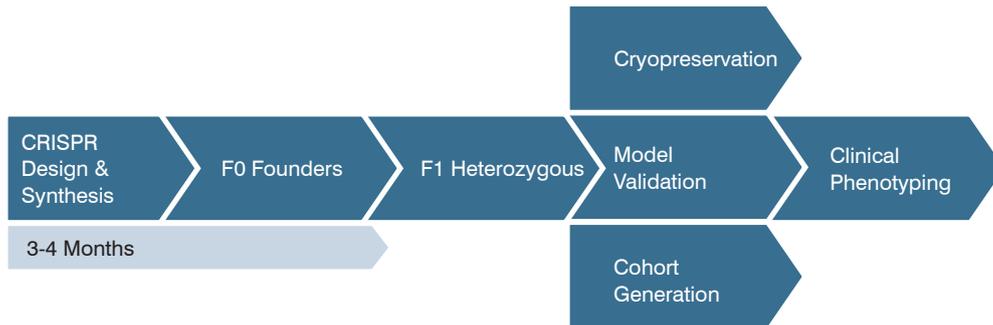
### Principle of CRISPR/Cas9 Modification in Zygote





## 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 founders
- Project timelines
- Confidentiality
- Exclusivity of intellectual property
- Breeding under VAF+ /SOPF
- Secure animal delivery worldwide
- Secured CRISPR/Cas9 license

BASIC RESEARCH

DISCOVERY

SAFETY ASSESSMENT

CLINICAL SUPPORT

MANUFACTURING SUPPORT