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# Generation of precision cancer mouse models using CRISPR-Cas9

## What service do we offer?

### Generation of precision cancer mouse models using CRISPR-Cas9

The MLC offers a comprehensive genome engineering resource from design to model production and validation. We establish and evolve new methods for the production of validated mouse models on controlled genetic backgrounds.

**APPLY NOW!!**



### Included in the service:

*This is included in the service provision by default.*

### Additional support:

*This can be provided on demand if there is canSERV funding available, or on a fee-for-service or collaborative basis and will require further negotiations with the applicant.*

- Project design and strategy optimisation based on years of experience in creating both simple and complex alleles.
- Supply/production of relevant reagents.
- Choice of a broad range of techniques, according to the required genetic alteration. These include classical gene targeting, genome editing using CRISPR/Cas9 in early embryos, CRISPR-aided targeting in embryonic stem cells, or additive transgenesis to generate the validated mouse.
- Allele types include tags, knock-ins, reporter and recombinase expressors, humanisation, inducible overexpression systems, large-scale deletions or duplication.
- Full validation of the genetic sequence of the mutant allele.
- Further functional validation of transgenes. This includes the option of mutant transcript quantification and recombinase activity profiling.
- We also offer the characterisation of copy number and point of insertion of transgenes obtained by additive transgenesis.



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## Who provides this service?

### The Mary Lyon Centre (MLC) at MRC Harwell (UK)



Mary Lyon  
Centre at  
MRC Harwell

The Mary Lyon Centre (MLC) at MRC Harwell is the UK's national facility for mouse genetics and the use of mouse models for the study of human disease. Our specialised services include the generation and phenotyping of genetically altered mice.

Contact: Martin Fray <[m.fray@har.mrc.ac.uk](mailto:m.fray@har.mrc.ac.uk)>

## References:

*No references available.*



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[INFRAFRONTIER, the European Research Infrastructure for Modelling Human Diseases](#), is a non-profit organisation dedicated to advancing disease understanding and treatment through cutting-edge models. Operated by a [network of over 20 leading biomedical research institutes](#), it empowers research on human health and disease. Committed to excellence, INFRAFRONTIER adheres to rigorous scientific benchmarks and prioritises animal welfare. Through [collaboration with other infrastructures](#), it fosters global data sharing and contributes to tackling significant health challenges. INFRAFRONTIER serves as a platform for innovative technologies and knowledge exchange, leveraging the power of disease modelling to improve human health.

INFRAFRONTIER offers a host of cutting-edge in vivo services in [canSERV](#) like generation of precision cancer models, in-depth cancer phenotyping and more! These free-of-charge services are offered by INFRAFRONTIER partners that are world-class experts in disease modelling.