INFRAFRONTIER via canSERV

Generation of precision cancer mouse models using CRISPR-Cas9

Provider: Netherlands Cancer Institute (NKI)

What service do we offer?

Generation of precision cancer mouse models using CRISPR-Cas9

The Animal Modelling Facility (AMF) at the Netherlands Cancer Institute provides all services related to the generation of genetically engineered mice (GEM) for academic researchers, with full-service covering the design and all hands-on steps. The AMF keeps track of recent technological developments and tests their usefulness for improving model generation.

APPLY NOW!!

Included in the service:

This is included in the service provision by default.

For each GEM the AMF designs efficient genotyping protocols. In addition, for each GEM the AMF provides cryopreservation and if needed revitalisation.

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.

The AMF provides the services of modulating ES-cells for in vitro studies and produce viruses for somatic modelling.

Who provides this service?

The Animal Modelling Facility at The Netherlands Cancer Institute (Netherlands)

NETHERLANDS CANCER INSTITUTE
ANTONI VAN LEEUWENHOEK

The Animal Modelling Facility (AMF) at the Netherlands Cancer Institute (NKI) consists of a molecular biology laboratory, an embryo manipulation laboratory and 2 rooms in the Animal Facility.

Contact: Paul Krimpenfort <pja.krimpenfort@nki.nl>

References:

During 2021-2023 we have generated 18 knock-in lines using CRISPR technology, of which research is currently ongoing.

- McLelland GL, Lopez-Osias M, Verzijl CRC, et al. **Identification of an alternative triglyceride biosynthesis pathway.** *Nature.* 2023; 621(7977):171-178. doi.org/10.1038/s41586-023-06497-4
- Gulen MF, Samson N, Keller A, et al. **cGAS-STING drives ageing-related inflammation and neurodegeneration.** *Nature.* 2023; 620(7973):374-380 doi.org/10.1038/s41586-023-06373-1
- Morgner J, Bornes L, Hahn K, et al. **A Lamb1Dendra2 mouse model identifies basement-membrane-producing origins and dynamics in PyMT breast tumors.** *Dev Cell*. 2023;58(7):535-549. doi.org/10.1016/j.devcel.2023.02.017

INFRAFRONTIER

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.