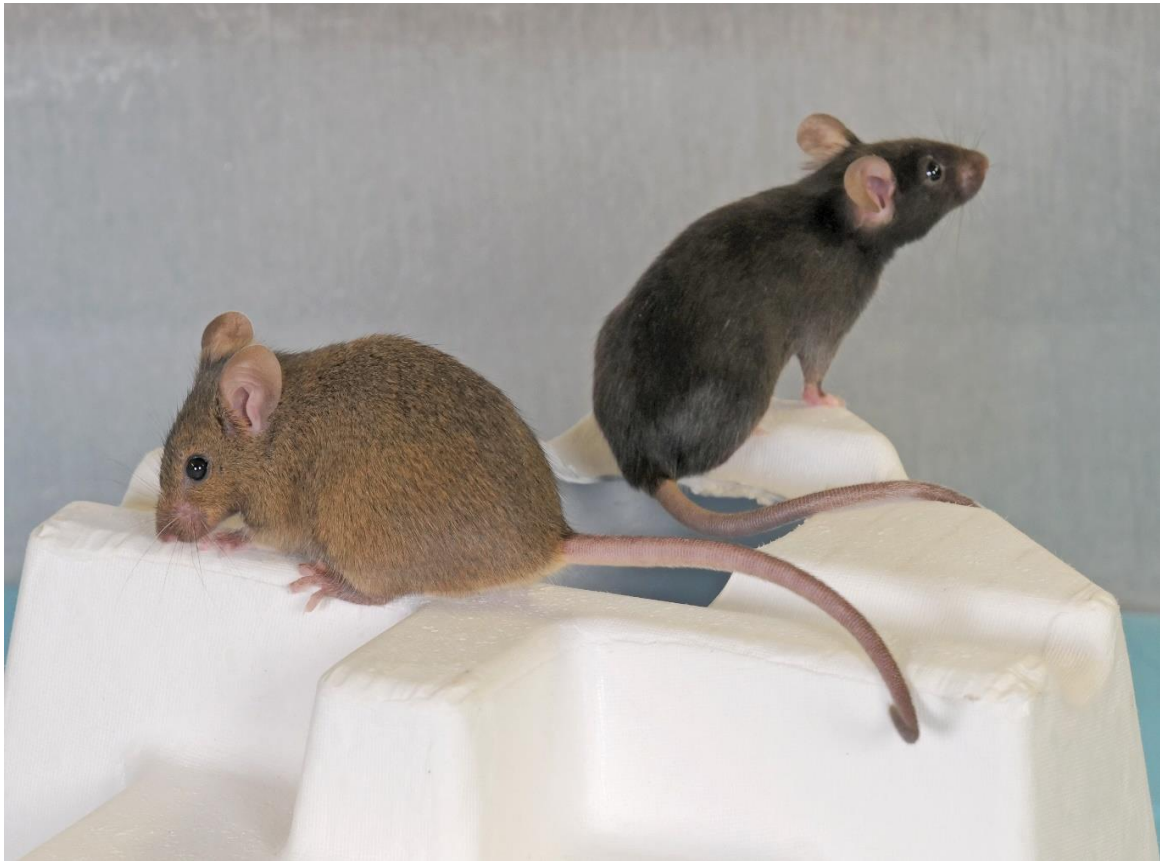


TAAM - CNRS CATALOGUE of SERVICES

TYPING and ARCHIVING of MODEL ANIMALS



A Word from the Director

The TAAM is a CNRS Support and Research Unit which offers a wide range of services related to the use of murine models for fundamental, biomedical and pharmaceutical research.

For over 60 years, 50 engineers and technicians have been applying their skills and expertise every day for the service of the scientific community by:

- *Offering a coordinated range of highly technical services from 6 poles of expertise :*
 - ✓ *Small animal in vivo imaging*
 - ✓ *Management of axenic and gnotobiotic colonies,*
 - ✓ *Bespoke colony management,*
 - ✓ *Cryo-preservation and assisted reproduction,*
 - ✓ *Microbiological and genetic analysis,*
 - ✓ *Distribution of models in France and abroad.*
- *Responding to researchers' expectations by innovating.*
- *Contributing to the transfer of knowledge by training students and by participating in scientific and technical training programmes designed for research laboratory engineers and technicians.*

Covering a surface area of 8500 m², the TAAM unit has an infrastructure and state of the art, high-tech equipments which operate 24/7.

The TAAM maintains high health, regulatory and ethical standards within these installations.

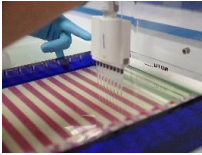
Since 2011, in the context of investments for the future, the TAAM has been one of the three national partners of the research infrastructure PHENOMIN, the national infrastructure CELPHEDIA and the pan-European infrastructure INFRAFRONTIER.

The TAAM has been ISO 9001 certified since January 2008 and NFX50-900 certified since 2014. The entire staff of the TAAM is committed to providing its clients with a service of quality in full respect of the rules of ethics and animal welfare to which we are all profoundly attached.

Do not hesitate to contact the TAAM in order to develop the answers to your needs.

Thank you for the trust you place in us to conduct your projects.

Director of the TAAM



ANALYSE GÉNÉTIQUE

The TAAM offers services of PCR test genotyping of genetically modified mouse and rat models (transgenic, Knock-Out, Knock-In, conditional Knock-Out, mutant...). The protocols are either provided by the client or developed by our team.

- ✓ Development of PCR tests
- ✓ Development of protocols
- ✓ Genotyping (by PCR or PCR-RFLP)



MICROBIOLOGICAL DIAGNOSTICS

Our unit proposes complete health diagnostics (mouse and rat): autopsy, parasitology, microbiology, serology and PCR tests, in accordance with the latest FELASA recommendations (Laboratory Animals 2014, Vol. 48(3)).

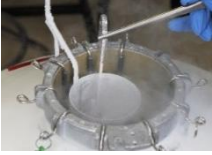
The parasitological and bacteriological analyses are conducted in our laboratory, the serological and “all PCR” tests are performed in partnership with QM Diagnostics (Nijmegen, Pays-Bas). The TAAM can take charge of live animals and ventilated rack filtering systems or can propose a non-invasive method: the TAAM-KIT.

The services included in this panel are also available separately. Please consult us for the list of micro-organisms to be identified.

- ✓ Complete FELASA panel on sentinel animals
- ✓ Complete FELASA panel on TAAM Kit (non-invasive method)
- ✓ Complete FELASA panel on ventilated rack filters

- ✓ Bacteriology
- ✓ Parasitology
- ✓ FELASA Serology : trimestrial / annual profile

- ✓ Pathogen detection by PCR test
- ✓ Serological test (one valence)

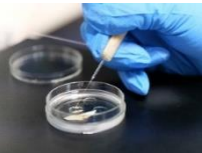


CRYOPRESERVATION, ARCHIVING and REVIVAL

Cryo-preservation of your lines is essential for protecting your research model from various hazards (problem with breeding, loss of the line, genetic drift etc.), for reducing breeding costs and simplifying distribution and, above all, to respect the principle of Reduction (3Rs).

Thanks to its experience in the field of cryopreservation of genetically modified mouse and rat lines, the TAAM currently possesses over 4,400 cryo-conserved and archived lines in the form of embryos and/or sperm. This expertise is available for you, to accompany your projects.

- ✓ Cryo-preservation of embryos
- ✓ Cryo-preservation of sperm with *in vitro* or *in vivo* quality control
- ✓ Secure archiving of straws in 2 separate secure sites
- ✓ Revival of embryos and sperm
- ✓ *In vitro* fertilisation



REDERIVATION and AXENISATION

It is essential to master the microbiological status of genetically modified mouse and rat lines of interest to research. The TAAM has two services available to support you with this:

- line rederivation by embryo transfer or *in vitro* fertilisation making it possible to obtain SOPF animals (free of the opportunistic organisms and pathogens on a predefined list)
- axenisation, performed by aseptic hysterectomy in an isolator, producing axenic animals (free of saprophytic flora or detectable pathogens), from animals of various microbiological status.

- ✓ Rederivation by embryo transfer
- ✓ Axenisation by aseptic hysterectomy



QUARANTINE

In order to establish a reliable diagnosis of the state of health of your line before it enters your animal facility, the TAAM proposes you its dedicated quarantine service (housing + health diagnostics) in ventilated racks or in isolators.

- ✓ Quarantine with sentinel animals in ventilated racks or in isolators
- ✓ Quarantine with TAAM kit (non-invasive method) in ventilated racks or in isolators



BESPOKE COLONY MANAGEMENT

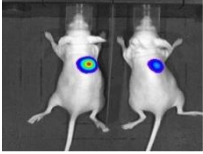
The TAAM accompanies you in the bespoke management of your mouse or rat colonies. All our animal units carry extremely high health statuses. Our axenic, SPF, SOPF and conventional animals benefit from adapted containment measures and their health status is monitored regularly.

Your assigned project manager takes charge of each step in the housing of your animals so that your wishes and needs are respected as closely as possible.

- ✓ Accommodation in conventional cages
- ✓ Accommodation in ventilated racks
- ✓ Accommodation in isolators

- ✓ Accommodation of axenic animals in isolators
- ✓ Accommodation of gnotobiotic animals in isolators

- ✓ Zoo-technical procedures: injections, weighing, sampling (serum, blood...), biopsies (organs, skin...)



In vivo IMAGING

The TAAM can offer *in vivo* exploration of animal models (mice, rats) thanks to its wide range of complementary equipment on one site, thus enabling numerous multi-modal approaches. The pole also has a bank of bioluminescent tumoral lines which can be utilised on request; client cell lines can also be manipulated, provided that they are type 1GMOs.

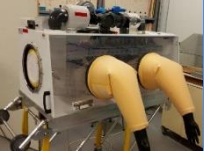
Finally, the imaging pole offers its expertise for the induction of experimental cancer models.

- ✓ Bioluminescent Imaging
- ✓ Fluorescent Imaging
- ✓ CT scan
- ✓ Tomo-scintigraphy
- ✓ Positron emission tomography
- ✓ Ultrasound scanning
- ✓ Photo-acoustic imaging
- ✓ Image processing

- ✓ Provision of bioluminescence equipment
- ✓ Provision of ultrasound scan equipment

- ✓ Induction of cancer models: *subcutaneous or orthotopic tumour grafts in the mammary gland, the pancreas, the colon, the prostate, the lung (under interventional imaging), the tibia/femur (under interventional imaging), metastatic models, developments on request...*

- ✓ Zoo-technical procedures associated with imaging services: *measurement of tumoral volume, monitoring animal weight, intramuscular, intraperitoneal and intravenous injections, intratracheal nebulised aerosol delivery, intranasal instillation, autopsy and organ preparation ...*



IMPORTATION and DISTRIBUTION of MODELS

The TAAM accompanies you in the transfer of your models, in the form of animals or cryo-preserved material (embryos, sperm) in France or abroad.

Our dedicated service manages all administrative procedures (health certificates, Customs Service, DDPP, etc.) and proposes measures which are adapted to the specific nature of your research projects or to the constraints of your animal facilities.

All our transportation is effected by authorised carriers.

- ✓ Dispatch of animals
- ✓ Dispatch of embryo straws or sperm straws
- ✓ Dispatch of frozen, refrigerated or ambient temperature biological samples

- ✓ Provision of dry shipper transport containers
- ✓ Provision of cylinders
- ✓ Provision of transport isolators



TAAM

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