
Activity Report, 2017



phenomin
EXCELLENCE IN MOUSE PHENOGENOMICS

1. Introduction

Rodent models are essential and key element for fundamental and preclinical researches. They are used to better understand variation in the human genome, fundamental mechanism and to test therapeutics in vivo with the aim to answer the Society needs to improve Health. Integrative approaches require maintenance, reinforcement and development of these organisms as mammalian models. They enrich our understanding of biological and physiopathological processes including the complexity of a whole organism, place for exchanges and communication between cells, organs and environment. These researches stimulate fundamental, biomedical and pharmaceutical innovations and must be done taking into consideration the Ethic and animal welfare.

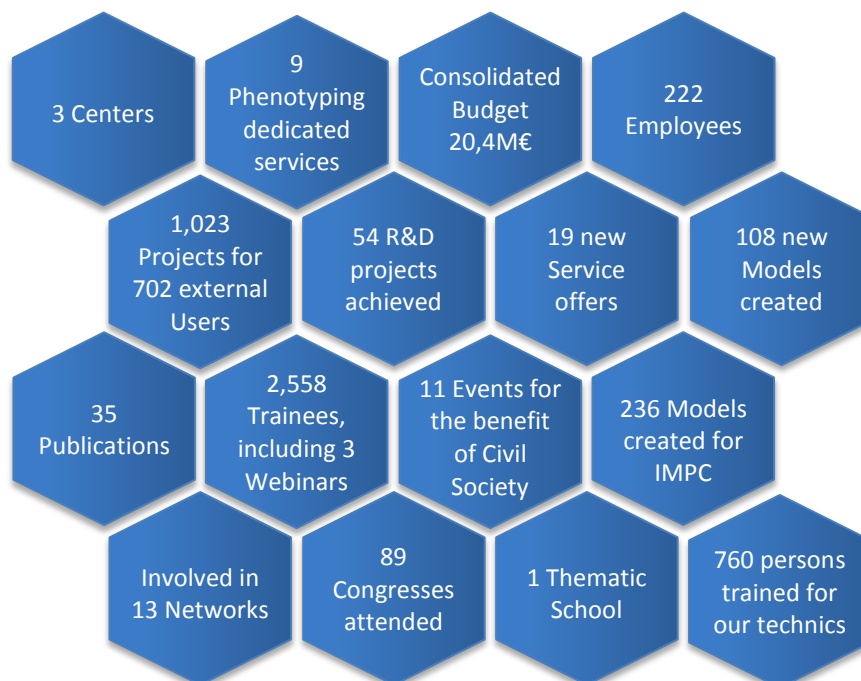
In this context, PHENOMIN Infrastructure aims to

- Offer services to its users for mouse and rat phenogenomic projects
- Develop and improve tools to move forward mammalian fundamental research and to respect animal welfare and apply ethical concepts regarding the animal research
- Improve the impact of preclinical studies regarding therapies development on humans
- Decode the pathological variation and the function of the mammalian genome

To achieve its missions, PHENOMIN has pursued several objectives:

- High integration level through a unique portal
- Joint training and communication actions to increase national and international visibilities
- High value service offers for both academic and industrial scientific communities
- Technical and scientific expertise improvement through high level technological developments while respecting ethics and animal welfare

2. 2017 with numbers





3. Highlights

3.1. 7th call for nomination addressed to the French scientific community

In late 2016, PHENOMIN launched its 3rd call for nomination in collaboration with the “Fondation Maladies Rares” for the generation and characterization of mouse models addressing rare disease issues. 46 new projects have been submitted from 36 research groups; 12 of them have been selected.

Up to now 3 calls have been launched in collaboration with the “Fondation Maladies Rares” within the French scientific academic community; 45 projects have been or are being realized from 129 submissions. All generated models are available after 2 years embargo.

3.2. Integration of new research programs and partnerships

In 2017 PHENOMIN experts and teams have been integrated in 8 new research programs and partnerships: AXENIS partnership, PAIN-Net, TheraHCC, ANR projects (COSMIT, Enterocyte purge recovery, NACID) and ERC projects.

These projects complete the list of active PHENOMIN projects and partnerships: CELPHEDIA, INFRAFRONTIER, IMPC, CanPathPro, CRL partnership, ImmGen, Magenta, Marseille Immunopole, MSDAVENIR, Fondation Maladies Rares, Fondation Bettencourt Schuller, Fondation Jerome Lejeune.

3.3. Quality management certification

PHENOMIN has been certified since March 2017 for the management and strategic steering of the Infrastructure under ISO 9001:2015 norm. This certification concerns only the management (the 3 centers are independently certified for their service activities) and is dedicated to the satisfaction of PHENOMIN interested parts (administrative supervisors and funding body, governance, service offer evaluation (user committee) and scientific evaluation (SAB)). The permanent interaction between strategy, coordination and other processes ensures reactivity and strategy adjustments if needed.

3.4. 2nd Thematic school

Following the success of its 1st edition, PHENOMIN has organized its 2nd European thematic school on mouse phenogenomics in June 2017. It gathered 24 European experts and 31 participants (researchers and PhD candidates) from 8 countries (12 nationalities) around the mouse as model organism. This school aims at disseminating and transferring technological and ethical knowledge as well as good practices regarding animal welfare through presentation and working group sessions. Next edition will be organized in collaboration with the European Infrastructure INFRAFRONTIER in 2019.

3.5. 2nd User committee meeting

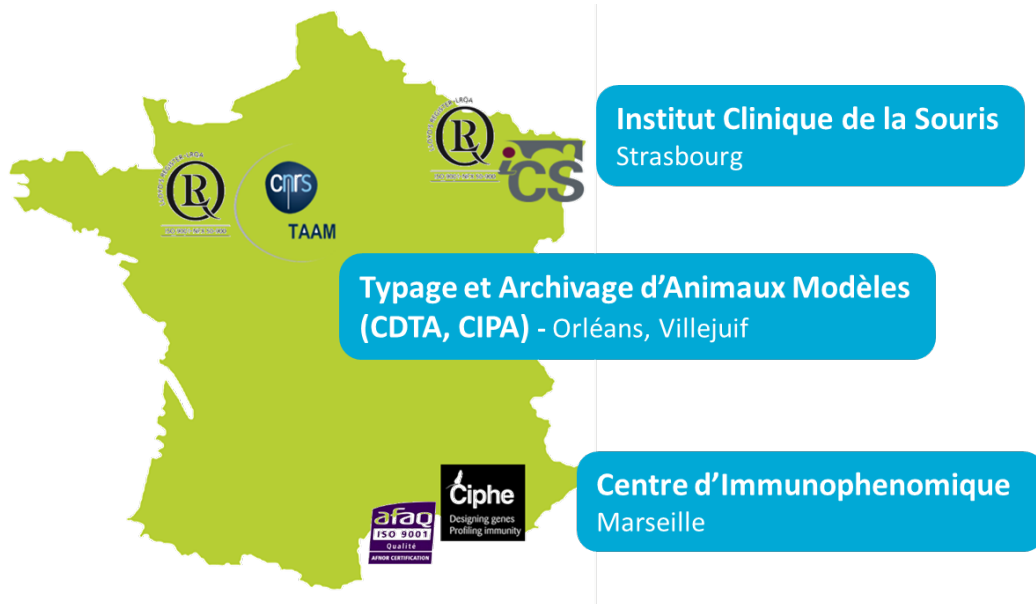
The 2nd User committee meeting took place in September 2017. Members did learn a lot regarding proposed services, explored therapeutic areas, evolution and development perspectives. Some suggestions have been raised regarding the exploration of additional therapeutic areas.

3.6. 2nd Scientific Advisory Board meeting

The 2nd SAB meeting was held in November 2017. Members were very impressed with the progresses made and estimated that PHENOMIN advanced some technologies and plays a prominent role in international consortia such as the International Mouse Phenotyping Consortium (IMPC). The SAB also noted the important role that PHENOMIN is playing in educating the scientific community on the latest techniques and research practices in animal research, welfare and ethics.



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