

SCIENTIFIC COMMUNITY

NEWSLETTER

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Photo: INFRAFRONTIER

Editorial

We would like to warmly welcome you to the first issue of our new INFRAFRONTIER Newsletter. With this new format we would like to keep you informed about news and latest developments in INFRAFRONTIER, the European research infrastructure for the generation, phenotyping, archiving and distribution of model mammalian genomes.

In this first issue of our newsletters you will find the following topics:

INFRAFRONTIER just opened a call to make available the unique infrastructure and scientific expertise of the INFRAFRONTIER mouse clinics to biomedical researchers around the globe. Access will be granted free of charge on the basis of the scientific excellence

of the proposals. All newly developed disease models and related phenotype data will be made available to the whole scientific community.

The generation of disease models and phenotyping information has also been one of the key elements of INFRAFRONTIER-I3. This project ceases after four successful years at the

end of 2016 and will be succeeded by INFRAFRONTIER2020. We look back at the achievements of INFRAFRONTIER-I3 and take a look at the goals, objectives and deliverables of the new project, which starts on January 1, 2017.

At the invitation of the European Commission scientists more than 400 scientists and other stakeholders debated

on the validity of animal models and approaches to reduce or replace animal testing. We sum up the main conclusions.

We wish you a good start into the new year and hope that you will enjoy reading our first newsletter.

Prof. Dr. Martin Hrabě de Angelis

Scientific Director /



Photo: Helmholtz Zentrum München



SPECIAL OFFER FOR BIOMEDICAL SCIENTISTS

Free of charge disease model development and systemic phenotyping

INFRAFRONTIER, the European Research Infrastructure for the generation, phenotyping, archiving and distribution of model mammalian genomes, makes an attractive offer to the international scientific community. INFRAFRONTIER offers free of charge access to the unique infrastructure and scientific expertise of the INFRAFRONTIER mouse clinics. Until February 15, 2017, scientists can submit applications for projects to develop and analyse mouse mutant

lines by the INFRAFRONTIER mouse clinics Phenomin-ICS, the Czech Centre for Phenogenomics (CCP) and the German Mouse Clinic (GMC). In a peer-review process INFRAFRONTIER will pick those applications with the highest potential for new discoveries on disease mechanisms and human pathophysiology. Overall, INFRAFRONTIER promotes 15 of those projects. Scientists and research teams from all over the world can take part in the open call, there

are no regional restrictions. For the applicants chosen by INFRAFRONTIER access is provided free of charge. The only costs to be borne by the applicants are shipment of materials to and from the mouse clinics involved.

Project proposals and application forms may be submitted by email proposals@infrafrontier.eu until February 15, 2017.

[*Further Information and download of application form I*](#)

INFRAFRONTIER-I3 completed, INFRAFRONTIER2020 starts

In 2013 the European Commission funded INFRAFRONTIER-I3 had kicked-off to promote the phenotyping, archiving and dissemination of mouse models, to link basic biomedical research to biomedical applications and to drive innovation.

Together the 23 INFRAFRONTIER-I3 partners – the European Mouse Mutant Archive (EMMA) nodes, the leading European mouse clinics and industry partners – achieved a number of important milestones:

Open call: INFRAFRONTIER mouse clinics provide free of charge access to their unique infrastructure and expertise. Scientists worldwide can apply.

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Photo: INFRACOMMUNITY

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- » Nearly 1800 new mouse lines were archived in the EMMA repository, extensive data curation of nearly 2700 mouse strains;
- » 55 users gained free of charge access to the development and characterisation of new mammalian disease models;
- » Refinement of applied technology and operation procedures led to significant reductions in animal use and costs; these results were disseminated in scientific papers and training videos;
- » Innovation of metabolic cages improved the measurements of energy balance in mammalian models;
- » Organisation of an outreach event to industry and of 16 training courses for more than 190 participants.

At the end of this year INFRACOMMUNITY-I3 project will be completed after a term of four successful years. On January 1, 2017, a new EC-funded project will start, INFRACOMMUNITY2020. This project will be key to advancing the long-term sustainability of the INFRACOMMUNITY Research Infrastructure.

Enhancing Infracommunity's excellence

The key objective of INFRACOMMUNITY 2020 is to enhance long-term sustainability and operational excellence of the INFRACOMMUNITY Research Infrastructure to ensure continued access to mouse models for basic research of human health and disease, and the translation of this knowledge into therapeutic approaches for the benefit of the European society.

Goals of INFRACOMMUNITY2020

To advance INFRACOMMUNITY's long-term sustainability, INFRACOMMUNITY2020 will refine the existing business model and legal framework of the INFRACOMMUNITY operation and develop new pilot services to enlarge INFRACOMMUNITY's service portfolio in line with user requirements. Another important goal is the re-engineering of the IT infrastructure to improve robustness and enable new functionalities. Maybe most importantly, INFRACOMMUNITY2020 will raise awareness for the resources and services offered by our research infrastructure through training courses and a new stakeholder conference format, and will promote best practices in mouse phenogenomics and the application of 3R and strict ethical and animal welfare standards. /



EUROPEAN COMMISSION SCIENTIFIC CONFERENCE:

“Non-Animal Approaches – The Way Forward”

Animal models are essential for research

In December 2016 the European Commission organised a scientific conference in response to the ‘Stop Vivisection’ initiative to completely ban animal experimentation in Europe. For two days scientists with expertise in research involving animals, animal testing and non-animal approaches and other stakeholders discussed about the validity of animal models and the current state of non-animal alternatives.

In the introductory note Daniel Caleja Crespo for the European Commission reiterated the goal of eventually phasing out animal experiments and gave an outlook on the Commission's plans. Yet, this plan has its limitations: "We can not find an alternative to everything", EU Commissioner Karmenu Vella said a few days later according to press reports.

With reference to the fact that animals are still necessary to understand basic physiology and pathophysiology, the Commission pointed out that it is important to differentiate between animal trials for toxicity tests (animal testing) and basic research involving animal models. Prof. George Kollias, Biomedical Research Center Alexander Fleming, Academy of Athens, referred to this idea: "Animal model research is essential", he urged during his lectures on the panel, while introducing INFRAFRONTIER to more than 400 scientists in the auditorium and to those following the live stream of the event. According to Prof. Kollias, standardisation of design, analyses and publi-

cation are as important as a careful selection of the right animal model. Scientists should keep in mind: "Don't blame your animal model! Blame your choice!"

The Commission further summed up the relevant findings of the conference: One of the main messages was the importance of implementing the 3R principles (reduction, refinement, replacement) throughout the scientific process. Another aspect was the encouragement by European policy towards data re-use and transparency.

The results of the conference will be published at the beginning of 2017. /

George Kollias of BSRC Alexander Fleming, Greece, talked about the importance of animal model research.



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