



FONDAZIONE GUIDO BERNARDINI  
BETTER EDUCATION FOR BETTER SCIENCE

# *ACTIVITY REPORT 2023*

The Fondazione Guido Bernardini is a non-profit international organization devoted since 2009 to continuing education and training of professionals involved in the care, welfare and use of laboratory animals.

In 2023 FGB diversified its offer in terms of topics, methodologies, and partnerships. Besides the traditional and appreciated topics, FBG developed initiatives on new themes such as alternative methods, environmental enrichment, and experimental design. Historical courses were updated and revised, programmes extended the focus to new species, models and techniques, such as microbiological monitoring in zebrafish facilities. For the first time a practical workshop with hands-on experience (using animal's dummies) was set up and offered to young scientists and technicians. This dry-lab experience received positive feedback by participants and was recognized as an effective tool for practical training and a concrete replacement approach application.

In the Italian context strategic partnerships have been developed with the University of Milan and IZS Institutes (Istituti Zooprofilattici sperimentali), with the objective of offering courses and events certified by the national Authority (Ministero della Salute).

In the European context FGB courses and scientific events also received continuing professional development credits (CPD) by prestigious organizations such as: the Institute of Animal Technology (IAT), the Swiss Veterinary Association and the Belgian Council Laboratory Animal Science (BCLAS).

During 2023 FGB has maintained its AALAS Affiliate Status and membership of the Royal Society of Biology.

FGB was present as exhibitor at national and international events such as Celasc in Prague, Aisal in Palermo and Ealas Congress in Rome, catching a significative number of people potentially interested in training activities and educational opportunities. This presence contributed to expand and strengthen its scientific network, with individuals, groups and societies active in Laboratory Animal Science.

## SCIENTIFIC EVENTS AND WORKSHOPS

**Virtual Conference “The multifaced universe of alternative methods in the day-to-day experimental work”, March 1st, 2023**



Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale' (IZS-Teramo) and Fondazione Guido Bernardini (FGB) organized a virtual training event on alternative methods, structured into two main sessions:

- Virtual International Conference “The multifaced universe of alternative methods in the day-to-day experimental work”, March 1st, 2023
- Satellite Onsite workshop “Optimising the design and running of studies”, February 28th (1 edition) and March 2nd (2nd edition)

The aim of the International Conference was to provide an overview on how to identify the best strategy for addressing a specific research question, including but not limited to the optimisation of the study design and the choice of the best experimental system.

The programme of the International Conference covered key topics such as systematic reviews, the PREPARE Guidelines, the pre-clinical model qualification approach, and the new frontiers in the non-animal research space.

This event was a unique opportunity to gain insights about how to choose the best model to answer a specific research question, and to discuss the principle that a model can or cannot be the best choice based on the context of use.

On February 28 and March 2nd, the opportunity was offered to attend a in person workshop with a limited number of seats, held by Prof. Derek Fry:

## ***Australian Symposium **EARLY CAREER LEADERSHIP & FACILITY MANAGEMENT WORKSHOP**, June 29<sup>th</sup>, 2023***

A workshop addressed to Australian LAS community took place in Italy on June 29th. Twenty participants coming from the most prestigious universities and institutions in Australia attended the FGB workshop focused on topics such as operations and processes in an animal facility, lean management, waste management, disaster plans and finally, personnel management in LAS and budgeting.



### Feedback

*VERY ENJOYABLE DAY/COURSE. I FEEL LIKE I HAVE GAINED PLENTY OF KNOWLEDGE THAT I CAN TAKE BACK TO MY OWN WORKPLACE TO IMPROVE PROCESSES.*

## Hands on course *Practical workshop on minimally invasive procedures in rodents and rabbits*

Realized in collaboration with the University of Milan, the workshop was organized on October 30 (1st edition) and 31 (2nd edition). The workshop aimed to teach and perfect the practical skills of handling and carrying out minimally invasive procedures in rodents and rabbits.



The opportunity to test the procedures by using rats, mice and rabbits' dummies was highly appreciated by the participants. The audience was composed by young researchers and technicians.

The topics were fully consistent with the training modules of the Italian Ministerial Decree of 5 August 2021.

## 2023 TRAINING COURSES

Below is a brief description of 2023 FGB Training Courses, all delivered in English and addressed to an international audience.

### Online course “*Managing a gnotobiotic rodents facility: tools and challenges*”, February 2<sup>nd</sup>

The one-day online course focused on the key aspects of the microbiota of laboratory rodents. The speakers provided very practical information on how to approach, manage and monitor a gnotobiotic facility. The course was addressed to Facility and unit managers and supervisors, veterinarians, persons responsible for overseeing the welfare and care of animals, quality assurance managers, animal technologists and senior technicians.

### Online course “*Cleansing and decontamination: State of the art, innovative approaches, and challenges in laboratory animal facilities*” March 15

The one-day online course focused on modern laboratory animal (mainly rodents) facilities and was designed to provide the participants with concepts of cleaning, decontamination and the main difference between disinfection, pasteurization, sanitization and sterilization. The discussion focused not only on the current state of the art solutions but also on the challenges

and new possible solutions for cleansing and decontamination procedures. The course raised a lot of interests among facility managers and technicians and, considering the request, a second edition was organized in May.

## Online course *What you should know about your rodent facility*, May 17- 18

The two-day online course, designed to provide the key aspects for the management of a modern laboratory rodent facility, with a particular focus on IVC systems, responds to the request of Facility and unit managers and supervisors, veterinarians, quality assurance managers, animal technologists and senior technicians.

## Online course *Intensive course on experimental design and biostatistics*, September 29, October 6 and 13

Currently, the scientific literature is critical of the translatability of *in vivo* research results and of the reproducibility of research conducted with animals. There are certainly solutions on what should be done to improve the translatability and reproducibility of animal experiments. Among the solutions, statistics and experimental design play a central role to reach better translatability and reproducibility, in addition to contribute to the Reduction arm of the ThreeRs. The two-day online course addressed the central question of how to design your experiments and which test to perform given your specific research questions. This course offered lectures, exercises and discussions on these topics.



## Online course *Key aspects to design an environmental enrichment program for lab rodents*, October 4 -5

The course is focused on the key aspects for designing a proper environmental enrichment program for lab rodents. The speakers shared practical information on how to approach, evaluate and monitor an environmental enrichment plan. An open session provided opportunities to discuss the practical challenges related to an environmental enrichment program.



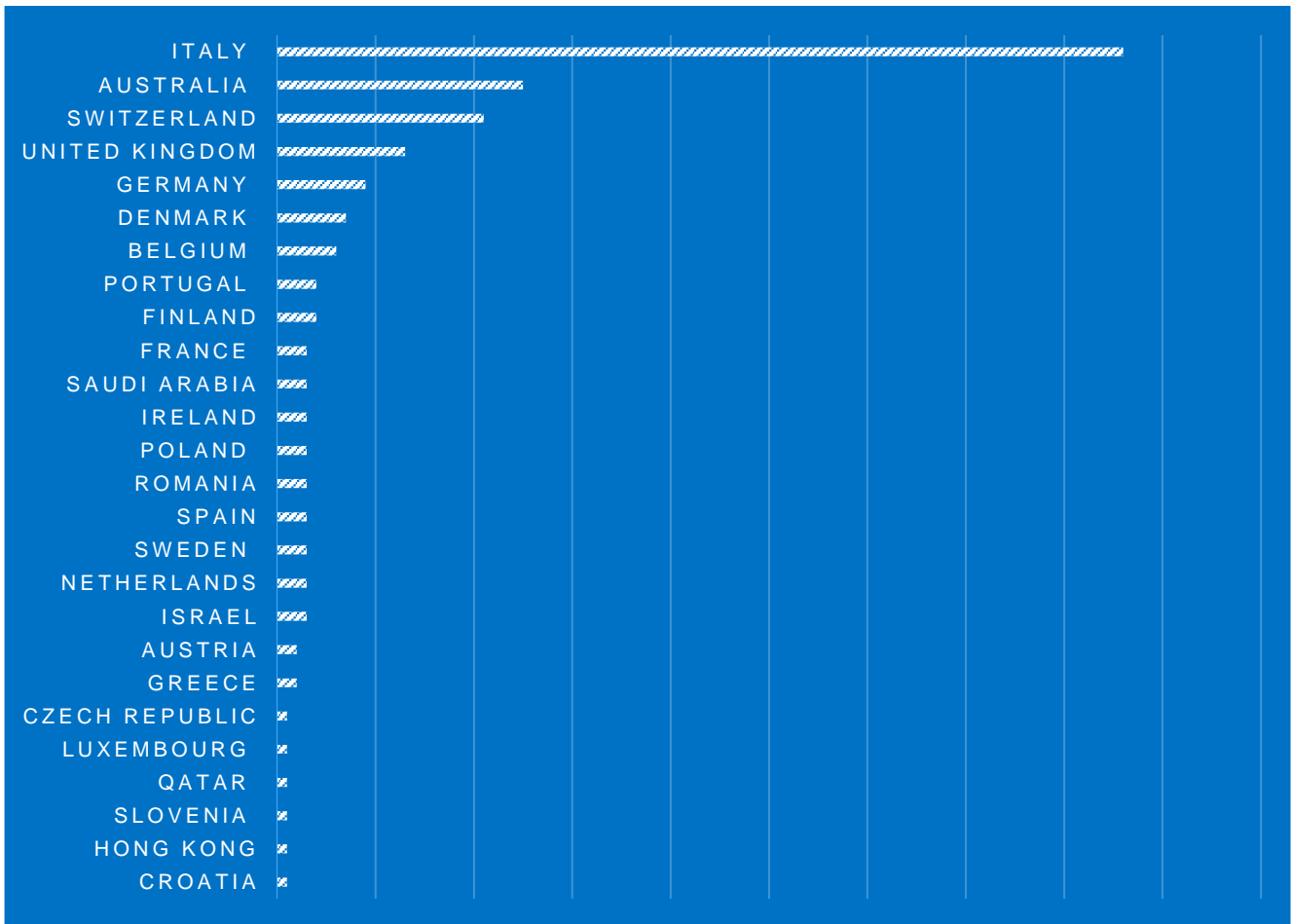
## In person course *Practical approaches and challenges for microbiological monitoring of rodents and zebrafish*, November 16 and 17

This two-day course is a completely revised edition of one of the most successful courses in the FGB offer and it benefits of more than ten years of experience. The participants were guided by experts through a general overview of the traditional and the new approaches to screen animals, the interpretation of HM reports and action plans in case of confirmed infection. Innovative approaches and new challenges of incoming animals monitoring were also be discussed. Moreover, the course will focus on health monitoring programs for Zebrafish.



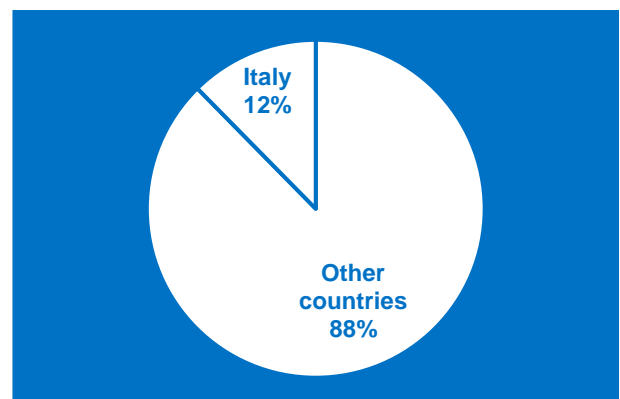
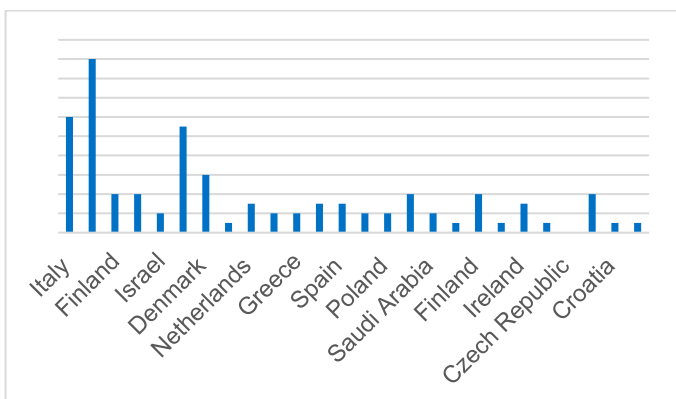
Three different workshops presented practical situations of everyday life providing the participants with the opportunity to develop their own strategies and HM program with the support of the trainers. The lively discussions and the informal training environment aimed to enhance the participants' knowledge and to improve their skills on everyday activities.

## Nationalities of attendees



In 2023 there was a greater involvement of Italian audience, due to the offer of workshops and events accredited by the Italian Ministry of Health, while traditional online courses reached mostly an international audience.

### Online courses, nationalities of attendees



## 2024 INITIATIVES

In 2024, new editions of the main training courses are scheduled beside new initiatives aimed at deepening the knowledge of relevant topics such as **GA-Rodents colony management**, delivered in collaboration with the **Francis Crick Institute**. The year will start with the **4<sup>th</sup> Italian Zebrafish Meeting**, organized in collaboration with the **University of Palermo**: an important event for the Italian Zebrafish community, with 200 participants coming from Italy and Europe (<https://itazebrafishmeeting.wixsite.com/izm2024> ).

Below the list of training courses and events already scheduled:

<b>2024 FGB Calendar</b>	
<i>Conference 4<sup>th</sup> Italian Zebrafish Meeting, Palermo</i>	<i>7 – 9 February 2024</i>
<i>Online course “What you should know about your rodent facility”</i>	<i>6th – 7th March 2024</i>
<i>Online course “Introduction to microbiological monitoring in rodent facilities”</i>	<i>29 May, 2024</i>
<i>LAB ANIMAL SCIENCE LEADERS’ MASTERCLASS</i>	<i>19 – 20 June 2024</i>
<i>In person course “GA-Rodents: Colony Management, breeding strategies and genetic quality control”</i>	<i>19 – 20 September 2024</i>
<i>Online course “Intensive course on experimental design and biostatistics”</i>	<i>4 - 11 - 25 October 2024</i>
<i>In person course “PRACTICAL APPROACHES AND CHALLENGES FOR MICROBIOLOGICAL MONITORING OF RODENTS AND ZEBRAFISH”</i>	<i>16 – 17 October 2024</i>
<i>Online course “Key aspects to design an environmental enrichment program for lab rodents”</i>	<i>14 – 15 November 2024</i>



## 2023 PROMOTION & NETWORKING ACTIVITIES

1st Central-East European Laboratory Animal Science Congress (CELASC),  
May 30 – June 1, 2023

FGB joined as an exhibitor the Scientific Community in Prague. Jan- Bas Prins and Alberto Gobbi, members of the FGB Scientific Committee were also participating as speakers.



XXIX Associazione Italiana per le Scienze degli Animali da Laboratorio (AISAL) Congress,  
Palermo, 28 and 29 September 2023

FGB was also present as exhibitor at the XXIX AISAL Congress, that took place in Palermo on September 28 and 29. It was an important opportunity to strengthen the Italian network and gain insights of Italian scientific community needs and interests.

1<sup>st</sup> European Academy of Laboratory Animal Surgery (EALAS) Congress, Rome, from 22 to  
24 November 2023

The first congress and satellite wet labs of the European Academy of Laboratory Animal Surgery (EALAS) was held in Rome, from November 22nd to November 24th, 2023. FGB joined the meeting as exhibitor. FGB' s Scientific Committee President Francesco Carù, who is also Council Member of EALAS, was also member of the Organizing Committee of the meeting.

### NEWSLETTER and FGB WEBSITE

Updates were regularly distributed by internet to FGB mailing list and published on relevant associations' web sites. FGB Mailing list was further expanded and FGB website ([www.fondazioneguidobernardini.org](http://www.fondazioneguidobernardini.org)) was constantly updated to better fulfil the need of an efficient and timely spread of information.

## SCIENTIFIC COMMITTEE

All members of [Scientific Committee](#), composed of distinguished representatives of the international laboratory animal and academic community. The Scientific Committee plays a fundamental role in ensuring the scientific excellence of educational and scientific programs.

Two historical members, Gemma Perretta and Marcel Gyger ended their mandate in 2023. FGB is grateful for the precious contribution they gave in the Foundation development.

In 2024, two new members will join the Scientific Committee: **Maria Kamper**, DVM, PhD, MBA. AAALAC International Council Member and Director, BSF - The University of Manchester (United Kingdom), and **Patrick Hardy**, DVM, Dipl. ECLAM, Veterinary Support Services (France).

FGB is honoured to welcome Maria and Patrick in FGB Scientific Committee.

## DONORS SUPPORT

In 2023 Donors contributions were essential to carry on daily activities and to improve the quality of the training offer. FGB is grateful to its donors: their continuous support makes possible to accomplish FGB mission and goals.

## GENERAL CONSIDERATIONS

In 2023 Fondazione Guido Bernardini enforced the in-person activities and kept improving the online training courses. In 2023 the standard current programmes were updated as usual, and FGB went forward with its strategic plan, by promoting new topics such new approach methods, experimental design, environmental enrichment and managing resources in a modern animal facility.

In 2024 FGB will keep on following this path, providing high quality education and training programs to LAS community. In addition, FGB will start up long term projects in the field of new technologies and innovation, such as LAS 3D printed models and LAS virtual reality training, thanks to its academic partnerships and research grants.

*Francesco Carù*

*FGB Scientific Committee President*