



"ALEXANDER FLEMING"  
Biomedical Sciences Research Center

# 2<sup>nd</sup> LAS CORE MODULES COURSE

July 1-2, 2021

*Webinar*

*BSRC "Alexander Fleming"*

*Vari, Greece*

In line with the "Common Education and Training Framework of EU, fulfilling the requirements under the Directive 2010/63/EU".

**SUPPORTED BY:**



InfrafrontierGR/PHENOTYPOS

**FOR MORE  
INFORMATION:**

BSRC Animal House

[www.animalfacility.eu](http://www.animalfacility.eu)



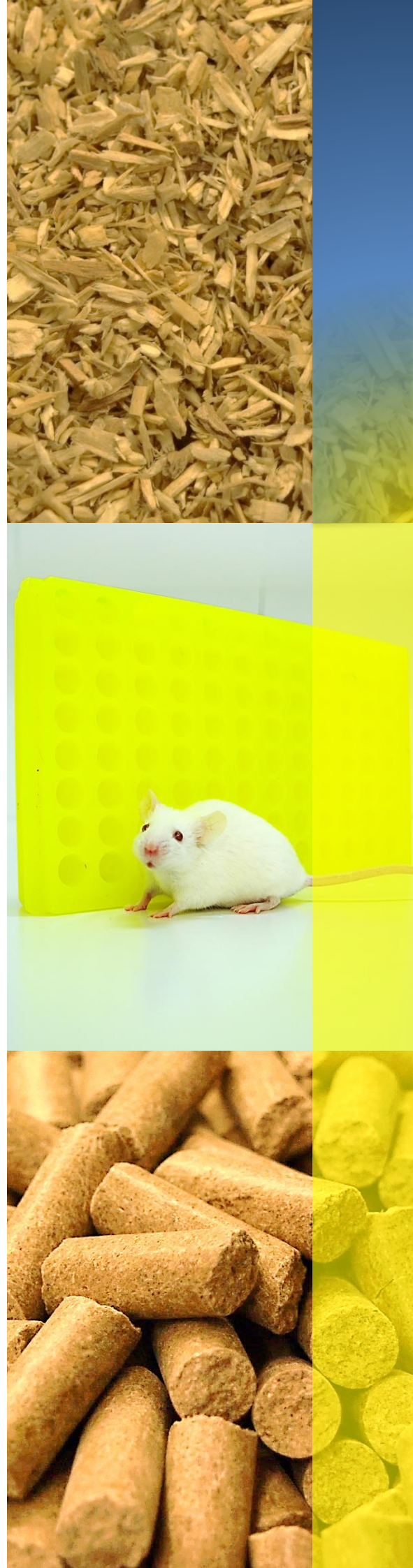
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SPECIAL SECRETARY FOR ERDF & CF  
MANAGING AUTHORITY OF ΕΡΑΝΕΚ



Co-financed by Greece and the European Union





# COURSE INFORMATION

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## Course objectives

- A two-day intensive Course on laboratory animal science is organized at the BSRC "Alexander Fleming", in July 2021. The Course content includes the **Core Modules** as described in the Commission "Working Document on the development of a common education and training framework to fulfil the requirements under the Directive 2010/63/EU". Core Modules represent the basic theoretical training for all personnel performing any of the Functions A-D of Article 23 (Directive 2010/63/EU) and Article 22 (P.D. 56/2013, national legislation). Completion of all Core Modules is compulsory for staff performing procedures on animals (function A), designing procedures and projects (function B), taking care of animals (function C) or killing animals (function D).

## Applications

- Applications are accepted by filling the online registration form, but may close earlier if maximum capacity is reached. Registration form can be found following the link:  
[https://docs.google.com/forms/d/e/1FAIpQLSd03jhFPPAH\\_ccgBU\\_o4x72vx9YIN3SvtK5oE0unxKwXp\\_Rsg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSd03jhFPPAH_ccgBU_o4x72vx9YIN3SvtK5oE0unxKwXp_Rsg/viewform).
- Registration deadline:
  - 01/04/2021 for BSRC "Alexander Fleming" internal users
  - 01/06/2021 for external users

## Assessment

- Students will be assessed through a multiple-choice exam upon Course (lectures) completion. A pass-mark of 60% is required as an acceptable standard.

## Certification

- Course certificates are issued after full attendance and a pass-mark of 60% minimum.



## CORE MODULES

*according to the Commission Working Document for a "Common Education and Training Framework of EU, fulfilling the requirements under the Directive 2010/63/EU"*

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### Module 1: National legislation

- This module provides a relevant level of understanding of the national and international legal and regulatory framework within which projects involving animals are constructed and managed, and of the legal responsibilities of the people involved, i.e. those performing procedures on animals; designing procedures and projects; taking care of animals; or killing animals, and may cover other relevant legislation.

### Module 2: Ethics, animal welfare and the Three Rs (level 1)

- This module provides guidance and information to enable individuals working with animals to identify, understand and respond appropriately, to the ethical and welfare issues raised by the use of animals in scientific procedures generally and, where appropriate, within their own programme of work. It provides information to enable individuals to understand and apply the basic principles of the Three Rs.

### Module 3.1: Basic and appropriate biology – species specific (theory)

- This module provides an introduction to the basic principles of animal behaviour, care, biology and husbandry. It incorporates information in relation to anatomy and physiological features, including reproduction, behaviour and routine animal husbandry and enrichment practices. It is not intended to provide more than the minimum background information which is needed for someone to be able to begin work under supervision.





## CORE MODULES

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### **Module 4: Animal care, health and management – species specific**

- This module provides information on various aspects of animal health, care and management including, environmental controls, husbandry practices, diet, health status and disease. It also includes relevant basic learning outcomes relating to personal health and zoonoses.

### **Module 5: Recognition of pain, suffering and distress – species specific**

- This module prepares researchers to be able to identify normal condition and behaviour of experimental animals and enable them to differentiate between a normal animal and one which is showing signs of pain, suffering or distress which could be a result of factors including environmental, husbandry or the effect of experimental protocols. It will also provide information regarding severity classifications, cumulative severity and the use of humane endpoints.

### **Module 6.1: Humane methods of killing (theory)**

- This module provides information on the principles of humane killing and the need to have someone available, at all times, who is able to kill an animal quickly and humanely if required. The module will include information and descriptions of the different methods available, details of the species for which these methods are suitable and information to help trainees compare the methods permitted and determine how to select the most appropriate method.



# COURSE PROGRAMME

DAY 1

Thursday 01.07.2021

Title	Speaker	Module	Time
Welcome, Introduction	V. Ntafis		09:30-09:40
EU - National Legislation	K. Marinou	1	09:40-10:10
Project authorization - Application	P. Andriopoulos	1	10:10-10:40
Ethics, animal welfare and the Three Rs	A. Papalois	2	10:40-11:20
<i>Coffee break</i>			
Severity assessment and humane endpoints	A. Zacharioudaki	2, 5	11:45-12:30
Mouse anatomy and physiology	A. Tsingotjidou	3.1	12:30-13:00
Mouse behaviour and enrichment	E. Georganta	3.1, 4, 5	13:00-13:30
<i>Lunch break</i>			
Handling and sexing laboratory mice	G. Notaras	3.1, 4	14:30-14:45
Breeding laboratory mice	K. Bavela	3.1, 4	14:45-15:15
Animal identification	A. Klavdianos	3.1, 4	15:15-15:30
Animal transport	O. Graphou	3.1, 4	15:30-15:45
<i>Coffee break</i>			
Genetically altered / modified animals - transgenesis	K. Bozonelos	3.1, 4	16:00-16:30
Genetically altered / modified animals in research	M. Armaka	4	16:30-17:00



## COURSE PROGRAMME

DAY 2

Friday 02.07.2021

Title	Speaker	Module	Time
Husbandry of laboratory mice	A. Neri	4	09:30-10:15
Health monitoring	V. Ntafis	4	10:15-11:00
<i>Coffee break</i>			
Welfare assessment and monitoring	P. Lelovas	5	11:30-12:00
Anaesthesia - Analgesia	M. Katsimpoulas	5	12:00-12:30
Humane methods of killing	M. Dragolia	6.1	12:30-13:00
<i>Lunch break</i>			
Animal facilities and human health hazards	V. Ntafis	3.1, 4	14:00-14:20
How may the experimental outcome be affected?	V. Koliaraki	2, 3.1, 4	14:20-14:50
PREPARE - ARRIVE guidelines and 3Rs related sources of information	E. Fragkiadaki	2	14:50-15:20
<i>Coffee break</i>			
Exams			15:45-16:45
Closing remarks	V. Ntafis		16:45-17:00



## SPEAKERS

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### INVITED SPEAKERS

- **Panagiotis Andriopoulos**, DVM, MSc, Directorate of Agricultural and Veterinary Policy, Region of Attica.
- **Eirini Fragkiadaki**, DVM, MSc, PhD, Designated veterinarian-Facility manager, Dep. Animal Models for Biomedical Research, Hellenic Pasteur Institute.
- **Olga Graphou**, MSc, Lab & Lab Animal Resources manager, Biomedcode S.A.
- **Michalis Katsimpoulas**, DVM, PhD, Staff Research Scientist - Assistant Professor Level, Experimental Surgery Unit, Center of Clinical, Experimental Surgery and Translational Research, BRFAA.
- **Pavlos Lelovas**, DVM, MSc, PhD, Laboratory for Research of the Musculoskeletal System, School of Medicine, National and Kapodistrian University of Athens.
- **Katerina Marinou**, DVM, MVM, PhD, Head of the Animal Welfare for Farm and Laboratory Animals' Division, Directorate of Animal Welfare, Veterinary Drugs and Veterinary Applications, General Directorate of Veterinary Services, Ministry of Rural Development and Food.
- **Anna Aikaterini Neri**, DVM, Designated Veterinarian, Laboratory for the Research of Musculoskeletal System Th. Garofalidis, KAT Hospital, School of Medicine, National and Kapodistrian University of Athens.
- **Apostolos E. Papalois**, Biologist, PhD, Coordinator for the Course of "Medical Bioethics", Master Program, O.U.Cyprus, Member of Educational Scientific Council, of the National Committee for Research, Technology and Innovation, Member of the National Committee for the use of animals for Scientific Purposes..
- **Anastasia Tsingotjidou**, President of the Hellenic Society of Biomedical and Laboratory Animal Science, Associate Professor, Lab. of Anatomy, Histology and Embryology, Faculty of Health Sciences, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- **Argyro Zacharioudaki**, DVM, MLAS, Dipl.ECLAM, Chief-Designated Veterinarian & Head Coordinator of Animal Research, Experimental Educational Research Center ELPEN.

### MEMBERS OF THE INFRAFRONTIER.GR/PHENOTYPOS INFRASTRUCTURE

- **Marietta Armaka**, Researcher C', Institute for Fundamental Biomedical Research, BSRC "Alexander Fleming".
- **Katerina Bavela**, Medical Laboratory Technician, Transgenics Facility/Cryo-unit, , BSRC "Alexander Fleming".
- **Konstantinos Bozonelos**, MSc, Operations Manager, Transgenics Facility/Cryo-unit, BSRC "Alexander Fleming".
- **Melina Dragolia**, MSc, Technician, Animal Facilities, BSRC "Alexander Fleming".
- **Eirini Georganta**, PhD, Postdoctoral Researcher, In charge of the Behavioral Phenotyping Unit, BSRC "Alexander Fleming".
- **Anastatios Klavdianos**, Animal Scientist, Technician, Animal Facilities, BSRC "Alexander Fleming".
- **Vasiliki Koliaraki**, Researcher C', Institute for Fundamental Biomedical Research, BSRC "Alexander Fleming".
- **Giorgos Notaras**, Medical Laboratory Technician, Lab Animal Technician, Animal Facilities, BSRC "Alexander Fleming".
- **Vasileios Ntafis**, DVM, MSc, PhD, Staff Scientist B', Head-Designated Veterinarian, Animal Facilities, BSRC "Alexander Fleming".

**Course Organizer**

**Vasileios Ntafis**

DVM, MSc, PhD

Head-Animal Facilities

BSRC “Alexander Fleming”

