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April – June 2024



10th International Course Care and use of laboratory animals

Organizing Committee

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Background History: *from 2014 to 2023*



ERASMUS IP Course



Care and use of laboratory animals: Science, philosophy and society



Heraklion, 5 - 16 May 2014

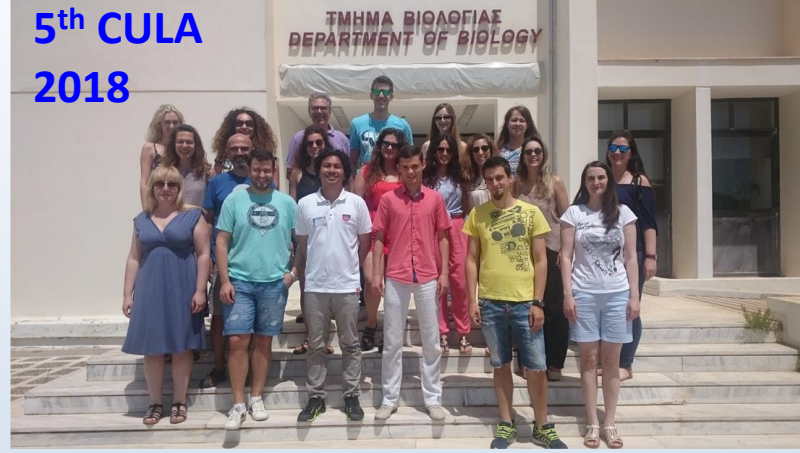


✓ 87 Applications

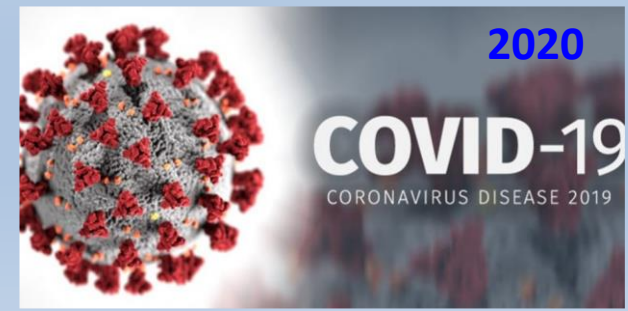
✓ 32 Participants

- 9 Finland
- 3 The Netherlands
- 20 Greece





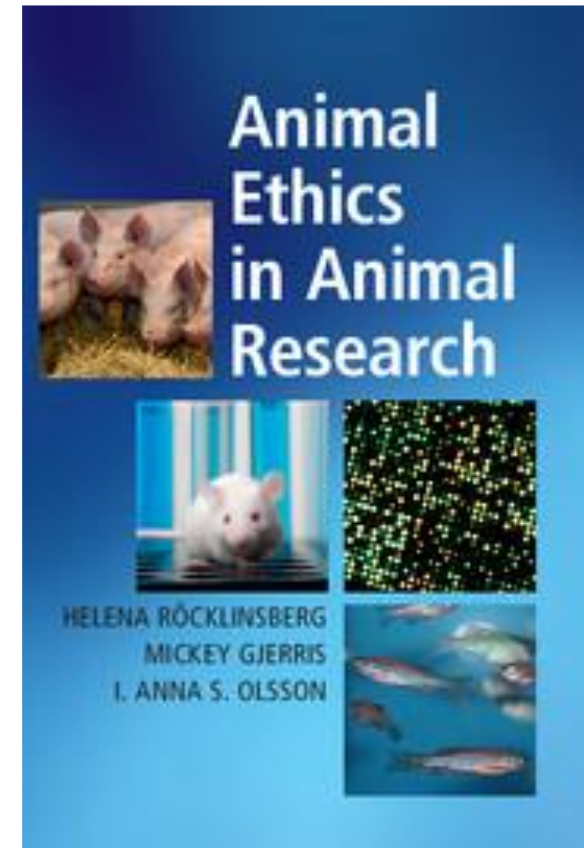
**Hybrid System
(since 2021)**



**2014 – 2023
212 Participants**

Why such a course?

I. Ethical concerns



Why such a course?

II. Legal requirements

European Convention for the Protection of Vertebrate Animals used for Experimental and Other Scientific Purposes *

Strasbourg, 18.III.1986

20.10.2010

EN

Official Journal of the European Union

L 276/33

DIRECTIVES

DIRECTIVE 2010/63/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 22 September 2010

on the protection of animals used for scientific purposes

(Text with EEA relevance)

COUNCIL DIRECTIVE

of 24 November 1986

on the approximation of laws, regulations and administrative provisions of the Member States regarding the protection of animals used for experimental and other scientific purposes

(86/609/EEC)

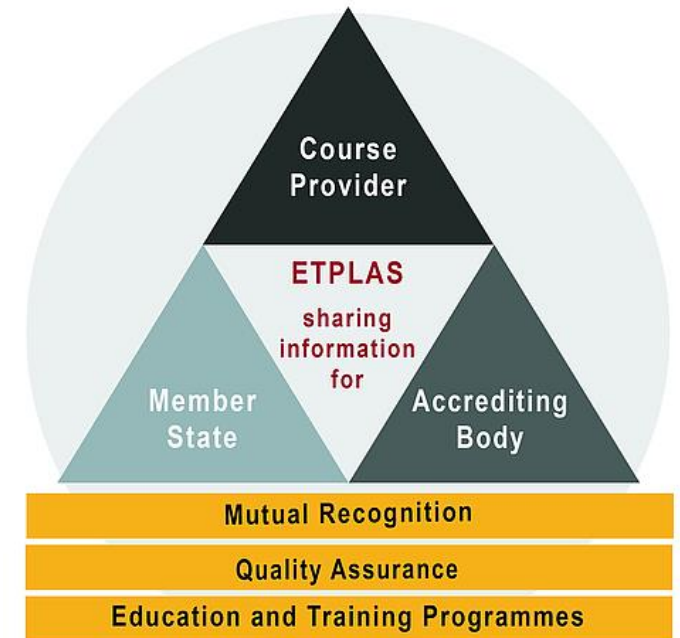
EU legal requirements

- *“Persons who carry out **procedures**, or take part in procedures, or take care of animals used in procedures, including supervision, shall have had **appropriate education and training**”*
(Article 26, Council of Europe Convention, 1986)
- *“Persons who carry out **experiments**, or take part in them and persons who take care of animals used for experiments, including duties of a supervisory nature, shall have **appropriate education and training**”*
(Article 14, EU Directive 86/609)
- *“Member States shall publish, on the basis of the elements set out in Annex V, minimum requirements with regard to **education and training** and the requirements for obtaining, maintaining and demonstrating requisite **competence** for the functions set out in paragraph 2”*
(EU Directive 63/2010)

What does it mean “appropriate education & training” ?

The Education & Training Platform for Laboratory Animal Science (ETPLAS)

- ✓ Development of a course
- ✓ Accreditation
- ✓ Quality Assurance
- ✓ Mutual recognition



CULA

Objectives

1. Provide advanced *education, training and expertise* in the care and use of vertebrate laboratory animals
2. Present the basic *philosophical* concepts, *scientific* principles and *legal* issues on animal welfare
3. Clearly comprehend the vital principles for *quality research involving lab animals*
4. Provide an *accredited certificate* demonstrating competence in working with laboratory animals for research purposes



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4. Provide an *accredited certificate* (FELASA) demonstrating competence in working with laboratory animals for research purposes



FELASA

What is FELASA?

- Federation of European Laboratory Animal Science Associations
- Umbrella organisation for laboratory animal science (LAS) associations in Europe
- Membership is opened to laboratory animal science associations of nations in geographical Europe
- No individual members – people are represented via their national association

FELASA

What is FELASA?

- FELASA was established in 1978
- FELASA has 21 constituent associations representing 28 countries
- FELASA has > 4,000 LAS individual members
- FELASA's accreditation follows the requirements in article 23 of the Directive 2010/63
- FELASA accredits courses – not people – for Functions A, B, C and D as well as veterinarians, project evaluators and specialists



FELASA Accreditation According to the Directive 2010/63/EU

1. FELASA accreditation is available for courses that develop initial training ***leading to competency in each of the 4 Functions identified in the Directive***
2. A course is defined as a ***training programme consisting of one or more modules designed*** to provide the education and training needs of personnel dedicated to a specific Function
3. It may or may not have been endorsed/accredited by a National or Regional Authority or a Laboratory Animal Science Association

Mapping of Modules to Functions and Specific Tasks		EU Function				
EU ID	Module description	A	B	C	D	Species specific
1	National legislation	C	C	C	C	
2	Ethics, animal welfare and the 3Rs (level 1)	C	C	C	C	
3.1	Basic and appropriate biology	C	C	C	C	Yes
4	Animal care, health and management	C	C	C	C	Yes
5	Recognition of pain, suffering and distress	C	C	C	C	Yes
6.1	Humane methods of killing	C	C	C	C	Yes
3.2	Basic and appropriate biology - skills	F		F	F	Yes
7	Minimally invasive procedures without anaesthesia	F	F			Yes
8	Minimally invasive procedures without anaesthesia - skills	F				Yes
9	Ethics, animal welfare and the 3Rs (level 2)		F			
10	Design of procedures and projects (level 1)	T	F			
11	Design of procedures and projects (level 2)		F			
6.2	Humane methods of killing - skills	T		T	F	Yes
20	Anaesthesia for minor procedures	T	T			
21	Advanced anaesthesia for surgical and prolonged procedures	T	T			
22	Principles of surgery	T	T			
23	Advanced animal husbandry, care and enrichment practices			T		

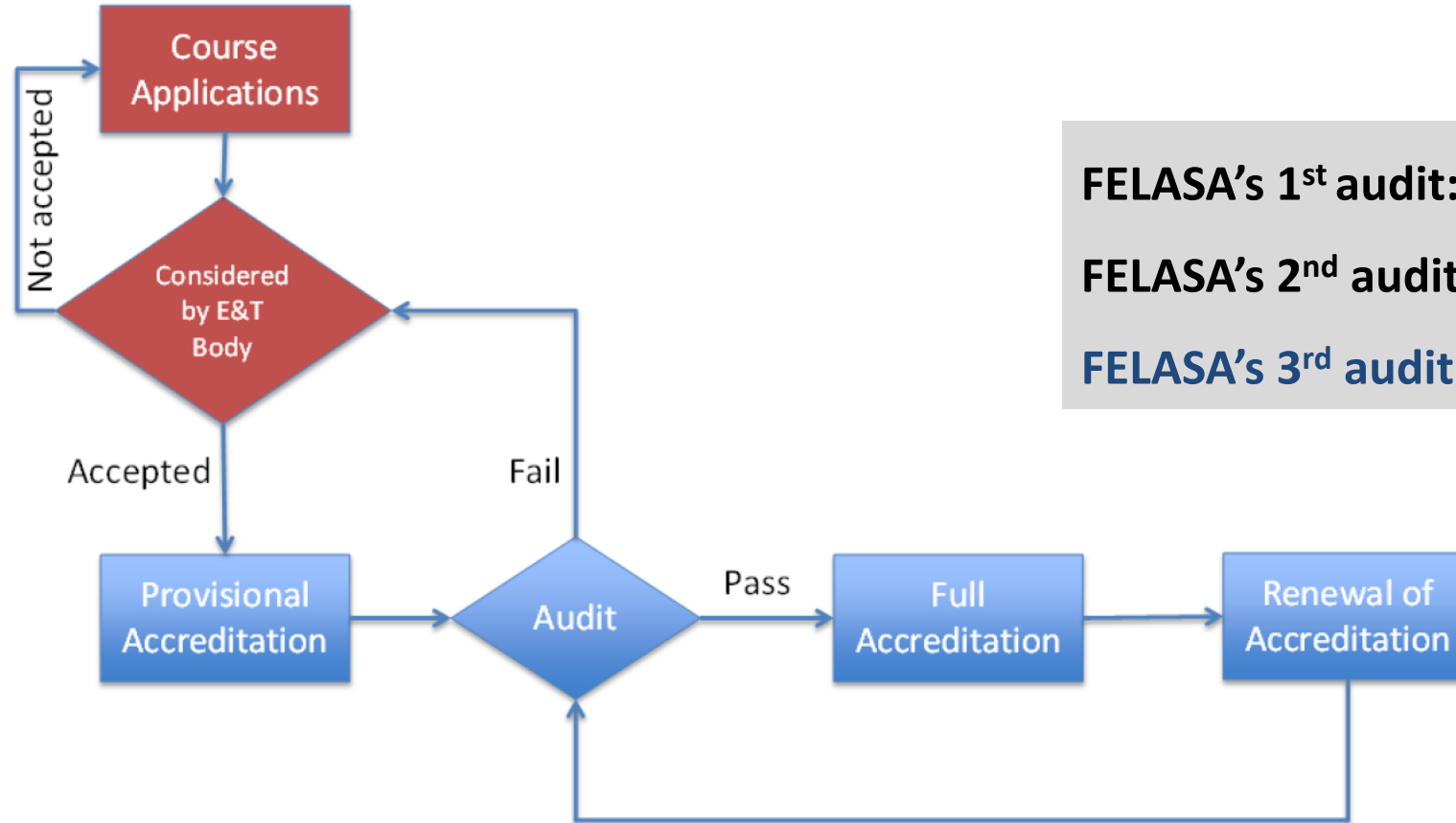
A: Carrying out procedures on animals
B: Designing procedures and projects
C: Taking care of animals
D: Killing animals

C: Core modules that are required for all functions
F: Function-specific (prerequisite) modules
T: Task-specific modules (modules that are relevant to specific tasks within a function)

Level 1: At this level the trainee should describe and explain the subjects taught

Level 2: At this level the trainee should show detailed understanding and should be able to critically evaluate the subjects taught

FELASA E&T Board Accreditation Process



FELASA's 1st audit: 2016

FELASA's 2nd audit: 2021

FELASA's 3rd audit: 2024

The course has been awarded FELASA accreditation for Functions A, B, C & D

The course

Lectures

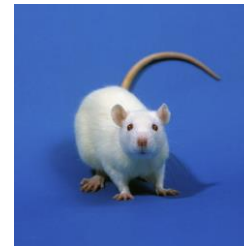
Practicals / hands-on training

Group work activities

Independent work activities

Species

- Rat (*Rattus norvegicus*)
- Mouse (*Mus musculus*)
- Zebrafish (*Danio rerio*)



Curriculum

**Ethical Aspects
& Welfare**

**Legal
Aspects**

Husbandry

**Life-cycle in
captivity**

**Breeding &
Genetics**

Management

**Stress, Pain &
Anxiety**

Procedures

**Health
assessment**

**Design & conduct
of experiments**

Group & independent work activities

- License and application protocol: 4 students each
- Power point presentation: 10 min

**APPLICATION FOR APPROVAL OF
EXPERIMENTAL PROTOCOL**

Hands-on Procedures

- ✓ Animal handling, immobilization and identification (tagging)
- ✓ Anesthesia and Analgesia
- ✓ Routes of drug administration
- ✓ Euthanasia
- ✓ Stitching
- ✓ Monitoring of water quality (*zebrafish*)
- ✓ Behavioural monitoring (*zebrafish*)

What's new

- ✓ Assessment of severity in mice, rats and zebrafish
- ✓ Welfare scoring systems (metrics)
- ✓ Welfare assessment schemes

Course Assessment

- ❖ **Multiple choice written exam – June 2024
(Pass: 7 out of 10)**
- ❖ **Re-examination (July 2024)**

FINAL GRADE

- ✓ **Multiple choice written exam: 85%**
- ✓ **PPT – Application protocol: 15%**

Learning Outcomes

1. Identify ***ethical issues*** in human-animal interaction.
2. Describe the requirements of European ***legislation*** concerning scientific use of animals.
3. Understand the ***basic biology***, describe the normal behavior and recognize signs of ***pain, suffering*** and ***distress*** of lab animals.
4. Demonstrate ***practical skills on important methods and techniques***
5. Perform ***humane use and care*** of laboratory animals.
6. Gain knowledge and insight into the ***design of an animal experiment*** in a scientific and ethically justified manner.



**Thanks,
Welcome &
Enjoy the Course**

Care and use of laboratory animals

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