

## Care and Use of Laboratory Animals:

### mice, rats and zebrafish

Coordinated by the

University of Crete - Department of Biology

in collaboration with the

Institute of Molecular Biology & Biotechnology- FORTH



### April – June 2024

Theoretical part of the Course – Online Lectures – 17 of April to 24 of May 2024

FELASA Severity Workshop & 10 Year Anniversary Celebration - On Campus - 31 of May 2024

Practical part of the Course – On Campus Laboratory Hands - On Training 03 to 07 of June 2024

Heraklion, Crete, Greece

<https://cula-uoc.eu/>



#### Scientific Committee

- Prof. M. Pavlidis, University of Crete, Dept. of Biology
- Prof. G. Garinis, University of Crete, Dept. of Biology and IMBB FORTH
- Dr. N. Kostomitsopoulos, Senior Research Scientist, BRFAA

#### Course Secretariat

- Mrs. Sofia Kyriakidi, University of Crete



## Week 1

### Wednesday, 17 April 2024

**Time 16:00 – 16:45**

**Introduction - orientation session (L)**

Prof. Michail Pavlidis  
University of Crete

Teleconference

**Time 17:00 – 17:45**

**Discussion/  
Preparation for PP presentation (O)**

Prof. Michail Pavlidis  
University of Crete

Teleconference

### Thursday, 18 April 2024

**Time 15:00 – 16:30**

**Stress, anxiety and welfare of laboratory animals (L)**

Dr. Athanasios Samaras  
University of Crete

Teleconference

### Friday, 19 April 2024

**Time 16:00 – 18:00**

**Introduction to animal ethics (L)**

Prof. Stavroula Tsinorema  
University of Crete

Teleconference

## Info:

L: Lecture  
P: Practicals  
O: Other





# Care and Use of Laboratory Animals: mice, rats and zebrafish

## Week 2

### Monday, 22 April 2024

**Time 15:00 – 16:30**

**National and EU Legislation (L)**

Dr. Katerina Marinou  
General Directorate of Veterinary Services  
Ministry of Rural Development and Food

Teleconference

### Tuesday, 23 April 2024

**Time 17:30 – 19:00**

**Defining alternatives; the 3Rs principles of animal use (L)**

Argyro Zacharioudaki, DVM MLAS DipIECLAM  
BIOEMTECH Laboratories

Teleconference

### Wednesday, 24 April 2024

**Time 15:00 – 16:30**

**Project authorization, Animal Welfare Bodies (L)**

Dr. Katerina Marinou  
General Directorate of Veterinary Services  
Ministry of Rural Development and Food

Teleconference

### Thursday, 25 April 2024

**Time 15:30 – 17:30**

**Diseases of laboratory animals, Health monitoring and prevention of disease (L)**

Dr. Nikolaos Kostomitsopoulos, DVM  
Biomedical Research Foundation Academy of Athens

Teleconference

### Friday, 26 April 2024

**Time 16:00 – 17:30**

**Current education and training requirements with laboratory animals (L)**

Prof. Ismene Dontas  
University of Athens

Teleconference

## Info:

L: Lecture

P: Practicals





### Week 3

#### Monday, 29 April 2024

**Time 15:00 – 16:00**

#### **Anesthesia and analgesia in laboratory animals (L)**

Dr. Kalliopi Stratigi,  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Teleconference

#### Tuesday, 30 April 2024

**Time 15:00 – 16:00**

#### **Quality management systems and GLP in Laboratory Animal Facility and Research (L)**

Dr. Georgia Chatzinikolaou  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Teleconference

## 31 of April – 12 of May 2024

## Happy Orthodox Easter Holidays

  
Care & Use of  
Laboratory Animals  
Mice, Rats, Zebrafish

### Info:

L: Lecture

P: Practicals





# Care and Use of Laboratory Animals: mice, rats and zebrafish

## Week 4

### Monday, 13 May 2024

|                           |  |                |
|---------------------------|--|----------------|
| <b>Time 16:15 – 17:15</b> | <b>Transportation and procedures (L)</b><br>Dr. Nikolaos Kostomitsopoulos, DVM<br>Biomedical Research Foundation Academy of Athens | Teleconference |
|---------------------------|--|----------------|

### Tuesday, 14 May 2024

|                           |   |                |
|---------------------------|---|----------------|
| <b>Time 16:00 – 17:30</b> | <b>Harm/benefit analysis: cases of research studies using laboratory animals in practice (PBL)</b><br>Prof. Ismene Dontas<br>University of Athens | Teleconference |
|---------------------------|---|----------------|

### Wednesday, 15 May 2024

|                           |   |                |
|---------------------------|---|----------------|
| <b>Time 16:00 – 17:15</b> | <b>Zebrafish Behavioral Indicators of stress &amp; anxiety (L)</b><br>Dr. Antonia Theodoridi<br>University of Crete | Teleconference |
|---------------------------|---|----------------|

|                           |  |                |
|---------------------------|--|----------------|
| <b>Time 17:30 – 19:00</b> | <b>Humane endpoints &amp; Euthanasia (L)</b><br>Argyro Zacharioudaki, DVM MLAS DipIECLAM<br>BIOEMTECH Laboratories | Teleconference |
|---------------------------|--|----------------|

### Thursday, 16 May 2024

|                           |   |                |
|---------------------------|---|----------------|
| <b>Time 15:00 – 16:00</b> | <b>Manipulating the mouse embryo (L)</b><br>Prof. Eirini Athanasakis<br>University of Crete | Teleconference |
|---------------------------|---|----------------|

|                           |   |                |
|---------------------------|---|----------------|
| <b>Time 16:15 – 17:30</b> | <b>Generation of transgenic, knockin and knockout animal models for human diseases (L)</b><br>Prof. George Garinis<br>University of Crete & Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas | Teleconference |
|---------------------------|---|----------------|

### Friday, 17 May 2024

|                           |  |                |
|---------------------------|--|----------------|
| <b>Time 15:00 – 15:45</b> | <b>Nutrition &amp; Dietary Regimens in Laboratory Animals (Mice &amp; Rats)</b><br>Dr. Georgia Chatzinikolaou<br>Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas | Teleconference |
|---------------------------|--|----------------|

|                           |   |                |
|---------------------------|---|----------------|
| <b>Time 16:00 – 17:00</b> | <b>Methods to assess emotional and cognitive behavior (L)</b><br>Assoc. Prof. Kyriaki Sidiropoulou<br>University of Crete | Teleconference |
|---------------------------|---|----------------|

## Info:

L: Lecture  
P: Practicals







# Care and Use of Laboratory Animals: mice, rats and zebrafish

## Week 5

### Monday, 20 May 2024

**Time 16:00 – 17:00**

**Severity classification  
(L)**

Prof. Ismene Dontas  
University of Athens

Teleconference

### Tuesday, 21 May 2024

**Time 16:00 – 16:45**

**Husbandry and Enrichment (L)**

Dr. Nikolaos Kostomitsopoulos, DVM  
Biomedical Research Foundation Academy of Athens

Teleconference

**Time 17:00 – 18:00**

**Communicating animal research to the  
public or Writing a Non Technical  
Summary(L)**

Dr. Nikolaos Kostomitsopoulos, DVM  
Biomedical Research Foundation Academy of Athens

Teleconference

### Wednesday, 22 May 2024

**Time 15:00 – 17:00**

**Zebrafish biology & husbandry (L)**

Dr. Eleftheria Fanouraki  
University of Crete

Teleconference

### Thursday, 23 May 2024

**Time 15:00 – 15:45**

**Experimental design (L)**

Prof. Konstantia Lika  
University of Crete

Teleconference

**Time 16:00 – 17:00**

**Statistical analysis and interpretation of  
results (L)**

Prof. Konstantia Lika  
University of Crete

Teleconference

### Friday, 24 May 2024

**Time 16:00 – 18:00**

**Zebrafish diseases and health  
management(L)**

Dr. Pantelis Katharios  
Hellenic Centre for Marine Research

Teleconference

## Info:

L: Lecture

P: Practicals





**Week 6 –Friday, 31 of May 2024**

**On Campus -University of Crete, Department of Biology, Heraklion, Crete**

**FELASA Severity Workshop & 10 Year Anniversary Celebration**

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**Friday, 31 May 2024**

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**Morning session**

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|---------------------------|---|----------------|
| <b>Time 09:00 – 09:20</b> | <b>Get to know us better</b><br>Prof. Michail Pavlidis<br>University of Crete   | Amphitheatre A |
| <b>Time 09:20 – 09:30</b> | Coffee break  |                |
| <b>Time 09:30 – 14:00</b> | <b>FELASA Severity Workshop</b><br>Argyro Zacharioudaki, DVM<br>Eirini Fragkiadaki, DVM<br>Hellenic Society of Biomedical & Laboratory Animal Science | Amphitheatre A |
| <b>Time 14:00 – 15:00</b> | Lunch   |                |

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**Friday, 31 May 2024**

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**Evening session**

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|---------------------------|---|---|
| <b>Time 18:30 – 21:00</b> | <b>Opening ceremony:</b><br><b>Ten Years of Training in the</b><br><b>Care &amp; Use of Laboratory Animals</b><br>Cultural Conference Center of Heraklion Crete<br>Experimental Theater | Cultural Conference<br>Center of Heraklion<br>Crete |
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**Info:**  
O: Other





# Care and Use of Laboratory Animals: mice, rats and zebrafish

**Week 7 – 03 to 07 of June 2024**

**On Campus -University of Crete, Department of Biology, Heraklion, Crete**

**Practical part of the Course –Laboratory Hands-On Training**

## 1st day – Monday, 03 June 2024

**Time 09:00 – 10:50**

**Mice hands-on exercise (P)**

**I: stitching and handling**

Dr. Theodoros Kosteas,  
Andromahi Tsimvragou, DVM  
Dr. Constantinos Kourouniotis, Eleni Moltsanidou, DVM  
Hara Roumpaki, MSc, Dr. Niki Ktena  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Laboratory B  
Department of Biology

**Time 10:50 – 11:05**

Coffee break

**Time 11:05 – 13:00**

**Mice hands-on exercise (P)**

**I: stitching and handling**

Dr. Theodoros Kosteas,  
Andromahi Tsimvragou, DVM  
Dr. Constantinos Kourouniotis, Eleni Moltsanidou, DVM  
Hara Roumpaki, MSc, Dr. Niki Ktena  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Laboratory B  
Department of Biology

**Time 13:00 – 14:00**

Lunch

**Time 14:00 – 19:00**

**Zebrafish hands-on exercise: Water quality  
monitoring, handling, anaesthesia, welfare  
indicators (P)**

**GROUP A**

Prof. Michail Pavlidis,  
Dr. Eleftheria Fanouraki, Dr. Thanasis Samaras  
University of Crete

Laboratory A  
Department of Biology

### Info:

L: Lecture

P: Practicals







# Care and Use of Laboratory Animals: mice, rats and zebrafish

Week 7 – 03 to 07 of June 2024

On Campus -University of Crete, Department of Biology, Heraklion, Crete

Practical part of the Course –Laboratory Hands-On Training

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## 2nd day – Tuesday, 04 June 2024

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**Time 09:00 – 10:50**

**Mice hands-on exercise (P)**

**II: Drug administration; Anaesthesia & analgesia**

Dr. Theodoros Kosteas,  
Andromahi Tsimvragou, DVM  
Dr. Constantinos Kourouniotis, Eleni Moltsanidou, DVM  
Hara Roumpaki, MSc, Dr. Niki Ktena  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Laboratory B  
Department of Biology

**Time 10:50 – 11:05**

**Coffee break**

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**Time 11:05 – 13:00**

**Mice hands-on exercise (P)**

**II: Drug administration; Anaesthesia & analgesia**

Dr. Theodoros Kosteas,  
Andromahi Tsimvragou, DVM  
Dr. Constantinos Kourouniotis, Eleni Moltsanidou, DVM  
Hara Roumpaki, MSc, Dr. Niki Ktena  
Institute of Molecular Biology and Biotechnology of the  
Foundation for Research and Technology Hellas

Laboratory B  
Department of Biology

**Time 13:00 – 14:00**

**Lunch**

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**Time 14:00 – 19:00**

**Zebrafish hands-on exercise: Water quality  
monitoring, handling, anaesthesia, welfare  
indicators (P)**

**GROUP B**

Prof. Michail Pavlidis,  
Dr. Eleftheria Fanouraki, Dr. Thanasis Samaras  
University of Crete

Laboratory A  
Department of Biology

**Info:**

L: Lecture

P: Practicals





# Care and Use of Laboratory Animals: mice, rats and zebrafish

**Week 7 – 03 to 07 of June 2024**

**On Campus -University of Crete, Department of Biology, Heraklion, Crete**

**Practical part of the Course –Laboratory Hands-On Training**

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## 3rd day – Wednesday, 05 June 2024

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**Time 09:00 – 11:30**

**Rats hands-on exercise (P)**

**I: handling & stitching**

Dr. Evangelos Balafas, MSc Pavlos Alexakos,  
BRFAA

Dr. Niki Mastrodimou, Dr. Konstantinos Kostas  
University of Crete

Laboratory Γ  
Department of Biology

**Time 11:30 – 11:45**

**Coffee break**

**Time 11:45 – 14:00**

**Rats hands-on exercise (P)**

**I: handling & stitching**

Dr. Evangelos Balafas, MSc Pavlos Alexakos,  
BRFAA

Dr. Niki Mastrodimou, Dr. Konstantinos Kostas  
University of Crete

Laboratory Γ  
Department of Biology

**Time 14:00 – 15:00**

**Lunch**

### Info:

L: Lecture

P: Practicals





# Care and Use of Laboratory Animals: mice, rats and zebrafish

Week 7 – 03 to 07 of June 2024

On Campus -University of Crete, Department of Biology, Heraklion, Crete

Practical part of the Course –Laboratory Hands-On Training

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## 4th day – Thursday, 06 June 2024

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**Time 09:00 – 11:30**

**Rats hands-on exercise (P)**

**II: Drug administration; Anaesthesia & analgesia**

Dr. Evangelos Balafas, MSc Pavlos Alexakos,  
BRFAA

Dr. Niki Mastrodimou, Dr. Konstantinos Kostas  
University of Crete

Laboratory Γ  
Department of Biology

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**Time 11:30 – 11:45**

**Coffee break**

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**Time 11:45 – 14:00**

**Rats hands-on exercise (P)**

**II: Drug administration; Anaesthesia & analgesia**

Dr. Evangelos Balafas, MSc Pavlos Alexakos,  
BRFAA

Dr. Niki Mastrodimou, Dr. Konstantinos Kostas  
University of Crete

Laboratory Γ  
Department of Biology

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**Time 14:00 – 15:00**

**Lunch**

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### Info:

L: Lecture

P: Practicals





# Care and Use of Laboratory Animals: mice, rats and zebrafish

Week 7 – 03 to 07 of June 2024, On Campus -UoC, Department of Biology, Heraklion, Crete  
EXAMS & PP Presentations of group work

## 5th day – Friday, 07 June 2024

|   |   |   |
|---|---|---|
| Time 09:30 – 10:30  | <b>Final exams</b><br><i>Multiple choice options,<br/>covering all topics addressed during the course</i>   | Department of Mathematics and Applied Mathematics of the UoC<br>Ground floor<br>Room B201 |
| Time 10:30 – 11:00  | <b>Coffee break</b>   |   |
| <b>PP Presentations of group work</b> Group work (≈15 min/group+ questions, ≈ 5 participants per group) |   |   |
| Time 11:00 – 11:15<br>+ questions   | <b>Group 1 - The role of diabetes in atherosclerosis progression and regression</b><br>Dimitris Kardassis<br>Jessica Ciobanu<br>Evelyn Rusu-Nastase<br>Andreea Mihaila<br>Letitia Ciortan<br>Teodora Barbalata  | Department of Mathematics and Applied Mathematics of the UoC<br>Ground floor<br>Room B201 |
| Time 11:30 – 11:45<br>+ questions   | <b>Group 2 - Probing transferable learning behavior in mice</b><br>Marouso Velissariou<br>Mrutyunjaya Panda<br>Christos Paschalidis<br>Stamatis Aliprantis<br>Madhan Tamizharasan<br>Georgios Efstathiou  | Department of Mathematics and Applied Mathematics of the UoC<br>Ground floor<br>Room B201 |
| <b>20 min. break</b>  |   |   |
| Time 12:00 – 12:15<br>+ questions   | <b>Group 3 - Modelling neurodevelopmental disorders over time in zebrafish</b><br>Sara Sebastiani<br>Diana Hofman<br>Ines Lobato de Faria<br>Divyanshu Awasthi<br>Maria Fernanda Veloz Castillo<br>Corrado Cali   | Department of Mathematics and Applied Mathematics of the UoC<br>Ground floor<br>Room B201 |
| Time 12:45 – 13:00<br>+ questions   | <b>Group 4 - Investigation of the Effects of Human Neural Stem Cell-Based Scaffold Grafts on the Locomotion Recovery in Immunodeficient Mice Following Spinal Cord Injury.</b><br>Dimitrios Tzeranis<br>Stamatis Xatzoglou<br>Manthos Sertedakis<br>Crystalla Konstantinou<br>Ioanna Zota<br>Vanessa Chappini | Department of Mathematics and Applied Mathematics of the UoC<br>Ground floor<br>Room B201 |
| Time 14:00  | <b>Farewell Lunch</b>   | Restaurant  |

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## at 10th Care & Use of Laboratory Animals





# 10th INTERNATIONAL COURSE

## "CARE AND USE OF LABORATORY ANIMALS"

Mice, Rats, Zebrafish

**APRIL - JUNE, 2024**



Hosted by the  
University of Crete,  
Department of Biology  
In Collaboration with  
IMBB, FORTH  
Heraklion, Crete, Greece

### ORGANIZING COMMITTEE

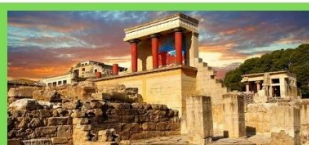
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DR. NIKI MASTRODIMOU,  
SCHOOL OF MEDICINE, UoC



### SCIENTIFIC COMMITTEE

PROF. MICHALIS PAVLIDIS, COORDINATOR  
UNIVERSITY OF CRETE

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BIOMEDICAL RESEARCH  
FOUNDATION OF THE ACADEMY OF ATHENS

PROF. GEORGE GARINIS,  
UNIVERSITY OF CRETE AND  
INSTITUTE OF MOLECULAR BIOLOGY  
& BIOTECHNOLOGY, FORTH



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<https://cula-uoc.eu/>

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