

11th International Course



Coordinated by the University of Crete - Department of Biology
in collaboration with the

Institute of Molecular Biology & Biotechnology- FORTH



April – June 2025

Theoretical part of the Course – Online Lectures – 7 of April to 20 of May 2025

Practical part of the Course – On Campus Laboratory Hands - On Training 26 to 30 of May 2025

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



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

Week 1

Monday, 7 April 2025

Time 16:00 – 16:45	Introduction - orientation session (L) Prof. George Garinis University of Crete & Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas	Teleconference
Time 17:00 – 17:45	Discussion/ Preparation for PP presentation (O) Prof. George Garinis University of Crete & Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas	Teleconference

Tuesday, 8 April 2025

Time 16:00 – 18:00	Introduction to animal ethics (L) Prof. Stavroula Tsinorema University of Crete	Teleconference
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Wednesday, 9 April 2025

Time 17:30 – 18:30	Defining alternatives; the 3Rs principles of animal use (L) Argyro Zacharioudaki, DVM MLAS DipIECLAM BIOEMTECH Laboratories	Teleconference
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Thursday, 10 April 2025

Time 15:00 – 16:30	Stress, anxiety and welfare of laboratory animals (L) Dr. Athanasios Samaras University of Crete	Teleconference
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Friday, 11 April 2025

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
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Info:

L: Lecture
P: Practicals
O: Other





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

Week 2

Monday, 14 April 2025

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, 15 April 2025

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

16 – 27 of April 2025

Happy 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 3

Monday, 28 April 2025

Time 14:30 – 16:00

Project authorization, Animal Welfare Bodies (L)

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

Teleconference

Tuesday, 29 April 2025

Time 17:30 – 19:30

Humane endpoints & Euthanasia (L)

Argyro Zacharioudaki, DVM MLAS DipLECLAM
BIOEMTECH Laboratories

Teleconference

Wednesday, 30 April 2025

Time 15:30 – 17:30

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

Dr. Konstantinos Kostas, DVM
University of Crete

Teleconference

Thursday, 1 May 2025

National public holiday

Friday, 2 May 2025

Time 15:00 – 15:45

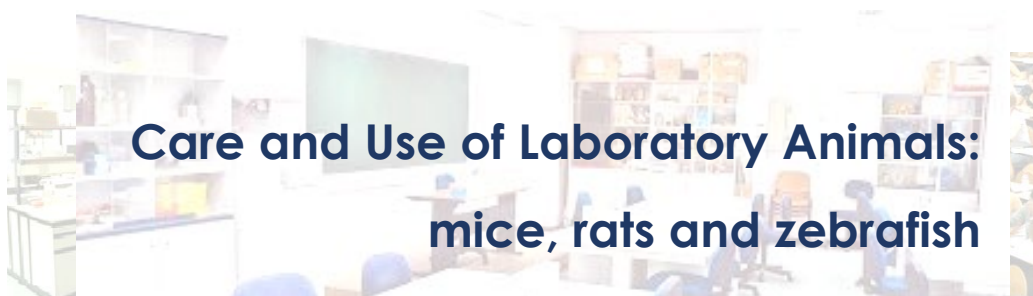
Nutrition & Dietary Regimens in Laboratory Animals (Mice & Rats)

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

Teleconference

Info:
L: Lecture
P: Practicals





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

Week 4

Monday, 5 May 2025

Time 16:00 – 18:00	Zebrafish diseases and health management(L) Dr. Pantelis Katharios Hellenic Centre for Marine Research	Teleconference
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Tuesday, 6 May 2025

Time 16:00 – 17:00	Transportation and procedures (L) Dr. Eleni Moltsanidou, DVM Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas	Teleconference
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Wednesday, 7 May 2025

Time 16:00 – 17:30	Generation of transgenic, knockin and knockout animal models for human diseases (L) Prof. George Garinis University of Crete & Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology Hellas	Teleconference
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Thursday, 8 May 2025

Time 17:30 – 19:00	Severity classification (L) Argyro Zacharioudaki, DVM MLAS DipIECCLAM BIOEMTECH Laboratories	Teleconference
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Friday, 9 May 2025

Time 16:00 – 17:30	Current education and training requirements with laboratory animals (L) Prof. Ismene Dontas University of Athens	Teleconference
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Info:
L: Lecture
P: Practicals





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

Week 5

Monday, 12 May 2025

Time 16:00 – 17:30

Harm/benefit analysis: cases of research studies using laboratory animals in practice (PBL)

Prof. Ismene Dontas
University of Athens

Teleconference

Tuesday, 13 May 2025

Time 16:00 – 16:45

Husbandry and Enrichment (L)

Dr. Marianna Tsoutsou, DVM, MLAS
Director, Animal Care & Use
Athens LifeTech Park

Teleconference

Time 17:00 – 18:00

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

Dr. Marianna Tsoutsou
ELPEN Pharmaceuticals

Teleconference

Wednesday, 14 May 2025

Time 15:00 – 17:00

Zebrafish biology & husbandry (L)

Dr. Eleftheria Fanouraki
University of Crete

Teleconference

Thursday, 15 May 2025

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, 16 May 2025

Time 16:00 – 17:00

Methods to assess emotional and cognitive behavior (L)

Assoc. Prof. Kyriaki Sidiropoulou
University of Crete

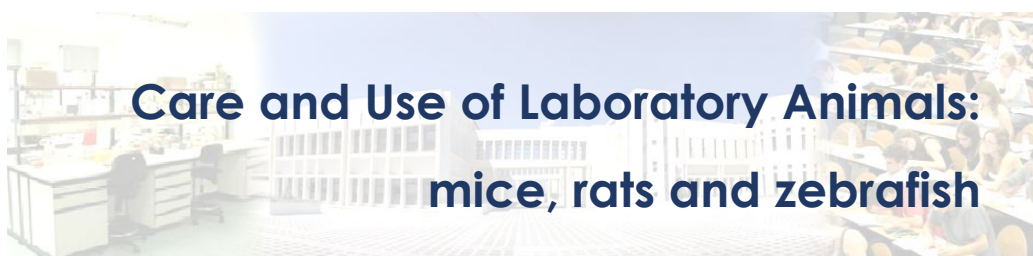
Teleconference

Info:

L: Lecture

P: Practicals





Week 6

Monday, 19 May 2025

Time 15:00 – 16:00

Manipulating the mouse embryo (L)

Prof. Eirini Athanasakis
University of Crete

Teleconference

Tuesday, 20 May 2025

Time 16:00 – 17:15

Zebrafish Behavioral Indicators of stress & anxiety (L)

Dr. Antonia Theodoridi
University of Crete

Teleconference

Info:
L: Lecture
P: Practicals





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

Week 7 – 26 to 30 of May 2025

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

Practical part of the Course –Laboratory Hands-On Training

1st day – Monday, 26 May 2025

Time 09:00 – 11:30

Rats hands-on exercise (P)

I: handling & stitching

Dr. Evangelos Balafas, MSc Pavlos Alexakos,
BRFAA

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

Laboratory Γ
Department of Biology

Time 14:00 – 15:00

Lunch

Time 15:00 – 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 – 26 to 30 of May 2025

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

Practical part of the Course –Laboratory Hands-On Training

2nd day – Tuesday, 27 May 2025

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

Time 11:30 – 11:45

Coffee break

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

Time 14:00 – 15:00

Lunch

Time 15:00 – 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 – 26 to 30 of May 2025

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

Practical part of the Course –Laboratory Hands-On Training

3rd day – Wednesday, 28 May 2025

Time 09:00 – 10:50

Mice hands-on exercise (P)

I: stitching and handling

Prof. Kyriaki Sidiropoulou,
Andromahi Tsimvragou, DVM
Dr. Konstantinos Diskos, Dr. Angeliki Velli
University of Crete
Dr. Theodoros Kosteas, Eleni Moltsanidou-DVM
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

Prof. Kyriaki Sidiropoulou,
Andromahi Tsimvragou, DVM
Dr. Konstantinos Diskos, Dr. Angeliki Velli
University of Crete
Dr. Theodoros Kosteas, Eleni Moltsanidou-DVM
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

Info:

L: Lecture

P: Practicals





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

Week 7 – 26 to 30 of May 2025

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

Practical part of the Course –Laboratory Hands-On Training

4th day – Thursday, 29 May 2025

Time 09:00 – 10:50

Mice hands-on exercise (P)

II: Drug administration; Anaesthesia & analgesia

Prof. Kyriaki Sidiropoulou,

Andromahi Tsimvragou, DVM

Dr. Konstantinos Diskos, Dr. Angeliki Velli

University of Crete

Dr. Theodoros Kosteas, Eleni Moltsanidou-DVM

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)

II: Drug administration; Anaesthesia & analgesia

Prof. Kyriaki Sidiropoulou,

Andromahi Tsimvragou, DVM

Dr. Konstantinos Diskos, Dr. Angeliki Velli

University of Crete

Dr. Theodoros Kosteas, Eleni Moltsanidou-DVM

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

Info:

L: Lecture

P: Practicals





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

Week 7 – 26 to 30 of May 2025, On Campus -UoC, Department of Biology, Heraklion, Crete
EXAMS & PP Presentations of group work

5th day – Friday, 30 May 2025

Time 09:30 – 10:30	Final exams <i>Multiple choice options, covering all topics addressed during the course</i>	Amphitheatre A
Time 10:30 – 11:00	Coffee break	
PP Presentations of group work Group work (≈15 min/group+ questions, ≈ 5-6 participants per group)		
Time 11:00 – 11:15 + questions	Group 1 – Modulating the Gut Microbiome to enhance immunotherapeutic efficacy in murine models of Glioblastoma Foteini Gkarlaouni Eirini Makrigiannaki Maria Mora Ioanna Pantazi Athina Tavernaraki-Triantafyllou Emmanouil Theodorakis	Amphitheatre A
Time 11:30 – 11:45 + questions	Group 2 – Investigation of Early Functional Recovery After Reconstruction of Sciatic Nerve Defect by Tunneling Autograft Through Muscle in a Rat Model Sofia Petsangouraki Giorgos Niforos-Garcia Josip Jaman Parkash Singh Rawat Kleanthi Kampitaki	Amphitheatre A
20 min. break		
Time 12:00 – 12:15 + questions	Group 3 – Smart nanoparticles as potential therapy for type-1 diabetes-associated atherosclerosis Ruxandra Anton Delia Boteanu Elena-Mirela Lambă Mihaela Serbanescu Andrei Vacaru	Amphitheatre A
Time 12:45 – 13:00 + questions	Group 4 – Micropollutant interactions in aquatic systems. Microplastic - heavy metal co - exposure in zebrafish Katerina Samiotaki Aleksandra Divac Rankov Marija Svrtlih Kristofers Millers Katerina Nikoforaki Konstantinos Chatzakis	Amphitheatre A
Time 14:00	Farewell Lunch	We will let you know ASAP for the place



11th INTERNATIONAL COURSE

"CARE AND USE OF LABORATORY ANIMALS: *Mice, Rats, Zebrafish*"



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

APRIL - MAY, 2025

ORGANIZING COMMITTEE



PROF. MICHALIS PAVLIDIS, COORDINATOR
UNIVERSITY OF CRETE (UoC)

PROF. GEORGE GARINIS,
DEPARTMENT OF BIOLOGY, UoC AND
INSTITUTE OF MOLECULAR BIOLOGY
& BIOTECHNOLOGY, FORTH

DR. ELEFThERIA FANOURAKI,
DEPARTMENT OF BIOLOGY, UoC

DR. THEODOROS KOSTEAS,
CO-HEAD of CORE FACILITIES
INSTITUTE OF MOLECULAR BIOLOGY
& BIOTECHNOLOGY, FORTH

DR. NIKI MASTRODIMOU,
SCHOOL OF MEDICINE, UoC

SCIENTIFIC COMMITTEE

PROF. MICHALIS PAVLIDIS, COORDINATOR
UNIVERSITY OF CRETE

DR. NIKOLAOS KOSTOMITSOPOULOS,
BIOMEDICAL RESEARCH
FOUNDATION OF THE ACADEMY OF ATHENS

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



For more information about the course please visit:
<https://cula-uoc.eu/>

FELASA ACCREDITATION
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