

4<sup>rd</sup> International Course

# 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



May 29, 2017 — June 9, 2017

Heraklion, Crete, Greece



### Organizing Committee

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

### Course Secretariat

- Mrs. Sofia Kyriakidi, University of Crete



Monday, 29 May 2017



**Monday, 29 May 2017**  
**09:30 am – 17:00 pm**

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**09:30 am – 10:00 am      Registration (O)**

Rotonda 3rd Floor  
Department of Biology

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**10:00 am – 11:00 am      Introduction (L)**  
Prof. Michail Pavlidis  
UoC

Rotonda 3rd Floor  
Department of Biology

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**11:00 am – 11:15 am      Coffee break**

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**11:15 am – 13:00 pm      Introduction to animal ethics (L)**  
Prof. Stavroula Tsinorema  
UoC

Rotonda 3rd Floor  
Department of Biology

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**13:00 pm – 14:00 pm      Lunch**

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**14:00 pm – 16:00 pm      Defining alternatives; the 3R principle of animal use (L)**  
Assis. Prof. Charalambos Spilianakis  
UoC & IMBB

Rotonda 3rd Floor  
Department of Biology

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**16:15 pm – 17:00 pm      Subject Selection for PP presentation (O)**  
Prof. Michail Pavlidis  
UoC

Rotonda 3rd Floor  
Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other





Tuesday, 30 May 2017



Tuesday, 30 May 2017

09:15 am – 17:00 pm

109:15 am – 11:00 am **Survey of European legislation (L)**

09:15 am – 11:00 am

**Survey of European legislation (L)**

Dr. iur. Jorgos Sbokos  
UoC external collaborator

Rotonda 3rd Floor  
Department of Biology

11:00 am – 11:15 am

**Coffee break**

11:15 am – 12:00 pm

**Model organisms. Definition, legal and ethical aspects (L)**

Prof. Michail Pavlidis  
UoC

Rotonda 3rd Floor  
Department of Biology

12:15 pm – 13:00 pm

**Nutrition and dietary regiments in laboratory animals (L)**

Georgia Chatzinikolaou  
IMBB

Rotonda 3rd Floor  
Department of Biology

13:00 pm – 14:00 pm

**Lunch**

14:00 pm – 15:00 pm

**Health hazards and safe practices in the animal house (L)**

Constantinos Kourouniotis, DVM  
IMBB

Rotonda 3rd Floor  
Department of Biology

15:15 pm – 17:00 pm

**Preparation of PP presentation (O)**

Parallel activity (2 h)

Rotonda 3rd Floor  
Department of Biology

**Info:**

L: Lecture

P: Practicals

O: Other





**Wednesday, 31 May 2017**  
**09:15 am – 17:00 pm**

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<b>09:15 pm – 11:00 pm</b>	<b>Mouse and rat: biology &amp; use (L)</b> Prof. Eirini Athanasaklis UoC	Rotonda 3rd Floor Department of Biology
<b>11:00 am – 11:15 am</b>	<b>Coffee break</b>	
<b>11:15 am – 12:00 am</b>	<b>Quality and GLP in Lab Animal Facility (L)</b> Theodoros Kosteas IMBB	Rotonda 3rd Floor Department of Biology
<b>12:15 am – 13:00 pm</b>	<b>Genetic standardization, Inbred strains; co-isogenic, congenic lines (L)</b> Assis. Prof. Charalambos Spilianakis UoC & I.M.B.B.	Rotonda 3rd Floor Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 am – 16:00 pm</b>	<b>Stress and welfare revisited (L)</b> Prof. Michail Pavlidis UoC	Rotonda 3rd Floor Department of Biology
<b>16:15 pm – 17:00 pm</b>	<b>Group work: License and application procedure (O)</b> Prof. Michail Pavlidis UoC	Rotonda 3rd Floor Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other





# Thursday, 1 June 2017



**Thursday, 1 June 2017**  
**09:15 am – 18:00 pm**

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<b>09:15 am – 10:00 am</b>	<b>Anesthesia and analgesia in laboratory animals (L)</b> Kalliopi Stratigi, IMBB	Rotonda 3rd Floor Department of Biology
<b>10:15 am – 11:15 am</b>	<b>Preoperative surgery (L)</b> Dr. Nikolaos Kostomitsopoulos, DVM BRFAA	Rotonda 3rd Floor Department of Biology
<b>11:15 am – 11:45 am</b>	<b>Coffee break</b>	
<b>11:45 am – 13:00 pm</b>	<b>Diseases of laboratory animals, Health monitoring and prevention of disease (L)</b> Dr. Nikolaos Kostomitsopoulos, DVM BRFAA	Rotonda 3rd Floor Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 pm – 18:00 pm</b>	<b>Rats hands-on exercise I: handling &amp; stitching (P)</b> Evangelos Balafas, Pavlos Alexakos, Dr. Nikolaos Kostomitsopoulos BRFAA Niki Mastrodimou, UoC	Laboratory Γ Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other



IMBB: Institute of Molecular Biology & Biotechnolog  
BRFAA: Biomedical Research Foundation of the Academy of Athens



**Friday, 2 June 2017**  
**09:15 am – 16:00 pm**

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<b>09:15 am – 13:00 pm</b>	<b>Rats hands-on exercise II: Drug administration; Anaesthesia &amp; analgesia (P)</b> Evangelos Balafas, Pavlos Alexakos & Dr. Nikolaos Kostomitsopoulos BRFAA Niki Mastrodimou, UoC	Laboratory Γ Department of Biology
<b>09:150 pm – 13:00 pm</b>	<b>Preparation of PP presentation (O)</b> Parallel activity (2 h)	Rotonda 3rd Floor Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 pm – 15:00 pm</b>	<b>Transportation and procedures (L)</b> Dr. Nikolaos Kostomitsopoulos, DVM BRFAA	Rotonda 3rd Floor Department of Biology
<b>15:15 pm – 16:00 pm</b>	<b>Transgenic animals; recombinant inbred strains (L)</b> Theodoros Kosteas IMBB	Rotonda 3rd Floor Department of Biology

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**Info:**

L: Lecture  
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O: Other



IMBB: Institute of Molecular Biology & Biotechnology  
BRFAA: Biomedical Research Foundation of the Academy of Athens



Monday, 5 June 2017



**Monday, 5 June 2017**  
**09:15 am – 16:00 pm**

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<b>09:15 pm – 10:00 pm</b>	<b>Zebrafish as laboratory animal (L)</b> Prof. Michail Pavlidis UoC	Rotonda 3rd Floor Department of Biology
<b>10:15 pm – 11:00 pm</b>	<b>The use of non-human primates in biomedical research (L)</b> Ass. Prof. Georgia Gregoriou UoC	Rotonda 3rd Floor Department of Biology
<b>11:00 am – 11:15 am</b>	<b>Coffee break</b>	
<b>11:15 am – 13:00 am</b>	<b>Stress biology &amp; welfare (L)</b> Prof. Gert Flik UN	Rotonda 3rd Floor Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 am – 16:00 pm</b>	<b>Methods and tests to assess anxiety-related behaviour (L)</b> Assis. Prof. Kyriaki Sidiropoulou UoC	Rotonda 3rd Floor Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other

UoC: University of Crete  
UN: Radboud University Nijmegen, The Netherlands





**Tuesday, 6 June 2017**  
**09:15 am – 18:00 pm**

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<b>09:15 am – 13:00 pm</b>	<b>Mice hands-on exercise I: stitching and handling (P)</b> Theodoros Kosteas, Constantinos Kourouniotis & Hara Roumpaki IMBB	Laboratory A Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 pm – 15:00 pm</b>	<b>Current education and training requirements with laboratory animals (L)</b> Prof. Ismene Dontas UoA	Rotonda 3rd Floor Department of Biology
<b>15:15 pm – 16:00 pm</b>	<b>Harm/benefit analysis: cases of research studies using laboratory animals in practice (O)</b> Prof. Ismene Dontas UoA	Rotonda 3rd Floor Department of Biology
<b>16:15 pm – 17:00 pm</b>	<b>Experimental design (L)</b> Assoc. Prof. Konstantia Lika UoC	Computer Room Department of Biology
<b>17:15 pm – 18:00 pm</b>	<b>Statistical analysis and interpretation of results (L)</b> Assoc. Prof. Konstantia Lika UoC	Computer Room Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other

UoC: University of Crete  
UoA: University of Athens  
IMBB: Institute of Molecular Biology & Biotechnology







# Wednesday, 7 June 2017



**Wednesday, 7 June 2017**  
**09:15 am – 18:00 pm**

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<b>09:15 am – 13:00 pm</b>	<b>Mice hands-on exercise II: Drug administration; Anaesthesia &amp; analgesia (P)</b> Theodoros Kosteas & Constantinos Kourouniotis IMBB	Laboratory A Department of Biology
<b>13:00 pm – 14:00 pm</b>	<b>Lunch</b>	
<b>14:00 am – 16:00 am</b>	<b>Zebrafish diseases, prophylaxis and treatment (L)</b> Dr. Pantelis Katharios HCMR	Rotonda 3rd Floor Department of Biology
<b>16:15 am – 18:00 pm</b>	<b>Stress and coping: the transational theory (L)</b> Assoc. Prof. Evangelos Karadimas UoC	Rotonda 3rd Floor Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other

UoA: University of Athens  
HCMR: Hellenic Centre Marine Research  
IMBB: Institute of Molecular Biology & Biotechnology





**Thursday, 8 June 2017**  
**09:15 am – 18:00 pm**

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**09:15 am – 13:00 pm**

**Zebrafish hands-on exercise: handling, anaesthesia, behavioural monitoring (P)**

Prof. Michail Pavlidis, A. Theodoridi &  
Dr. Aleka Tsalafouta  
UoC

Laboratory B  
Department of Biology

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**13:00 pm – 14:00 pm**

**Lunch**

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**14:00 pm – 18:00 pm**

**Presentations of group works (O)**

Open session

Rotonda 3rd Floor  
Department of Biology

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**Info:**

L: Lecture  
P: Practicals  
O: Other





**Friday, 9 June 2017**  
**09:15 am – 14:00 pm**

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**09:15 am – 11:00 am**

**Exams (O)**  
Prof. Michail Pavlidis  
UoC

Laboratory B  
Department of Biology

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**11:15 am – 13:00 pm**

**Free discussions;  
Evaluation assessment (O)**

Laboratory B  
Department of Biology

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**13:00 pm – 14:00 pm**

**Lunch**

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## Fairwell party

**Info:**

L: Lecture  
P: Practicals  
O: Other





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