



## CephRes - Cephalopod Biology and Care (CBC)

FELASA accredited course on cephalopods as laboratory animals  
(FELASA 062/18F)

in compliance with Directive 2010/63/EU Functions: A, C, D

### PROGRAM

*Monday, March 11<sup>th</sup> 2019*

- 9:00            *Registration and Welcome*
- 9:30 – 11:30    The Directive 2010/63 and a comparative overview of National Legislations related to Cephalopods  
*David Anderson (UK)*
- break*
- 12:00 – 12:30    Publication of *in vivo* animal studies<sup>(\*\*)</sup>  
*Chiara Balestrieri; Giovanna Ponte; Graziano Fiorito (IT)*
- 12:30 – 13:15    Guidelines for the Care and Welfare of Cephalopods: a short intro  
*Graziano Fiorito (IT)*
- lunch break*
- 14:45 – 16:15    Procedures, their planning and Humane Endpoints  
*Paul Andrews (UK)*
- break*
- 17:00 – 18:00    Experimental procedures under Directive 2010/63/EU  
*Paul Andrews (UK)*
- 18:00 – 18:45    Care and welfare of cephalopod egg masses<sup>(\*)</sup>  
*Roger Villanueva (ES)*
- 19:00 – 20:00    The Directive 2010/63/EU: an interactive questionnaire  
*David Anderson (UK)*

*Tuesday, March 12<sup>th</sup> 2019*

- 8:30 - 9:30      Severity of regulated procedures in cephalopods under Directive 2010/63/EU  
*Paul Andrews (UK)*
- 9:30 - 10:30     Cephalopod Biology: from form to function (part 1)  
*Graziano Fiorito (IT)*
- break*
- 10:45 - 12:00    Minimally invasive procedures  
*Paul Andrews (UK)*
- 12:00 - 12:45    Nutrition and Feeding  
*Chiara Balestrieri (IT)*
- lunch break*
- 14:15 - 14:45    Catching cephalopods for scientific purposes and their transport  
*Chiara Balestrieri (IT)*
- 14:45 - 15:15    Transporting cephalopods for scientific purposes  
*Chiara Balestrieri (IT)*
- 15:15 - 16:15    Sensory biology, sound perception and influence of noise in cephalopods<sup>(\*)</sup>  
*Marta Solé (ES)*
- break*

(\*) Seminar - (\*\*) group exercise



**Tuesday, March 12<sup>th</sup> 2019 - continued**

- 16:30 - 18:00 Cephalopod Biology: from form to function (part 2)  
*Graziano Fiorito (IT)*
- 18:00 - 19:30 Procedures: case study  
*Paul Andrews (UK)*  
*Giovanna Ponte (IT)*
- 19:30 - 20:00 Prospective Severity of procedures in cephalopods: group exercise  
*Paul Andrews (UK)*

**Wednesday, March 13<sup>th</sup> 2019**

- 8:30 - 9:30 CBC2019 Trainees: Experiencing cephalopods  
[CBC Faculty mentoring]
- 9:30 - 11:30 Ethics, the Three Rs and welfare considerations when using cephalopods  
*Jan-Bas Prins (UK & NL)*
- break*
- 12:00 - 12:45 Cephalopod Welfare from hatchling to mature adult: life-cycle & implications for care and experimentation on captive animals  
*Graziano Fiorito (IT)*
- 12:45 - 13:15 Introduction to practicals (includes a short overview on cephalopods main anatomical characteristics)  
*Giovanna Ponte (IT)*  
*Graziano Fiorito (IT)*
- lunch break*
- 15:00 - 19:00 Practical (I)  
[CBC Faculty, leading Giovanna Ponte & Graziano Fiorito]

**Thursday, March 14<sup>th</sup> 2019**

- 8:30 - 10:00 Recognition of pain, suffering and distress  
*Graziano Fiorito (IT)*
- break*
- 10:15 - 11:15 General Anesthesia: an introduction and considerations relevant to cephalopods  
*Giovanna Ponte (IT)*
- 11:15 - 12:15 Local & General Anaesthesia in cephalopods  
*Giovanna Ponte (IT)*
- 12:15 - 12:45 Humanely killing cephalopods and confirmation of death  
*Giovanna Ponte (IT)*
- 12:45 - 13:15 Basic principles of surgery for aquatic species; considerations to cephalopods  
*Viola Galligioni (IRL)*
- lunch break*
- 14:30 - 20:30 Practical (II)  
[CBC Faculty, leading Giovanna Ponte & Graziano Fiorito]

**Friday, March 15<sup>th</sup> 2019**

8:30 - 8.50	Considerations for anaesthesia and humane killing of paralarval stages in cephalopods <sup>(*)</sup>	<i>Fernando Ángel Fernández-Álvarez (ES)</i>
8:50 - 9.20	Activity Cycles and their Disruption: the case of cephalopods	<i>Chiara Balestrieri (IT)</i>
9.20 - 10.50	Housing, Facility Management and Care of cephalopods	<i>Viola Galligioni (IRL)</i>
	<i>break</i>	
11.30 - 12.30	Health status and cephalopods diseases	<i>Viola Galligioni (IRL)</i>
12.30 - 13.30	Administration of substances. Theoretical considerations of practical methods	<i>Giovanna Ponte (IT)</i>
	<i>lunch break</i>	
14:30 – 15:15	Education & Training post implementation of Directive 2010/63/EU; requirements and needs for cephalopod ‘workers’	<i>Patri Vergara (ES)</i>
15.15 - 16.00	CBC2019: Group Discussion (Questions and Answers)	[CBC Faculty mentoring]
16.00 - 19.30	<b>Final Assessment</b>	
21.30	<i>Farewell Dinner</i>	

(\*) Seminar

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**CBC Training Program** is a **Function A/C/D course** according to the EU Directive 2010/63 (article 23.2), accredited by the **Federation of European Laboratory Animal Science Association (FELASA)**. CBC is a CephRes project originated from the Cephalopod Biology and Care training school originally developed under the *aegis* of the COST Action FA1301. CephRes-CBC training program is the first and the sole course operating in Europe with FELASA accreditation, specifically and exclusively designed for the cephalopod molluscs in compliance with article 23 and Annex V of the Directive 2010/63/EU. Cephalopod Biology and Care course provides theoretical and practical introduction to handling, housing, care and use of cephalopods as ‘laboratory animals’ and how to replace, refine and reduce the use of live cephalopods in research. It covers practical implications for research, including cephalopod biology, maintenance and care, capture, housing and handling, health and welfare management and assessment in any context, in compliance with Directive 2010/63/EU. CBC2019 course is open to people who perform the functions, as stated in article 23 of the Directive 2010/63/EU: carrying out procedures on animals, taking care of animals, killing animals.