

MASTERS IN LABORATORY ANIMAL SCIENCE AND ANIMAL WELFARE**Module 4: Microbiology, Diseases and Health monitoring in Laboratory Animals****November 2026****Course Coordinators:**

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Module program responsible:

M. Neus Prats
Non Clinical Toxicology
Alexion/ Astra Zeneca Rare Diseases
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COURSE OBJECTIVES

This module provides the practical and theoretical knowledge and skills regarding microbiology, diseases and health monitoring required by designated veterinarians and other onsite personnel responsible for the welfare and care of laboratory animals in the conduct of experimental procedures.

The module looks at the importance of health monitoring and the range of diseases that can affect laboratory animals and how diseases may affect experiment results.

This course is part of the **Masters Course in Laboratory Animal Science and Welfare**, accredited by **FELASA** as “**Category D – Specialist in laboratory animal science**”. For veterinarians, it is part of the training program for Diplomats of the European College of Laboratory Animal Medicine (**ECLAM**) and the **Certificate in Laboratory Animal Science and Medicine** approved by **VetCEE**.

The course thanks **Serveis Integrats de l'Animal de Laboratori (SIAL)**, **Spanish Association of Laboratory Animal Science (SECAL)** the **International Council for Laboratory Animal Science (ICLAS)** and **Novartis** for their support with individual scholarships.

Duration of course: 6 ECTS, 44 attendance hours

Methodologies: Theoretical classes. Case studies. Webinars/Discussion sessions. Practical sessions.

The course includes 3 weeks of individual study before the classroom part of the course, one week of classroom sessions and lab practical sessions and 3 weeks of case study after the classroom part.

Evaluation will be finished around **December 15, 2026**

Teaching Staff:

Mariona Aulí, Almirall, Spain

Marion Berard, Institute Pasteur, France

Laurence Bonnet, Marshall BioResources, France

Alys Bradley, Charles River Laboratories, Edinburgh Ltd

Stephanie Buchheister , Hannover Medical School, Germany

Alex Cobos, Departament of Animal Health. Universitat Autònoma de Barcelona, Spain

Estefania Contreras, Laboratory Animal Integrated Services (SIAL), Universitat Autònoma de Barcelona, Spain

Mariano Domingo, Departament of Animal Health. Universitat Autònoma de Barcelona, Spain

Begoña García, Charles River Laboratoires, Evreux , France

Patrick Hardy, FELASA Working Group on Farm Animals, France

Jan Langermans, Biomedical Primate Research Center (BPRC), The Netherlands.

Ricard March, Laboratorios Hipra S.A., Spain

Miquel Nofraries, Departament of Animal Health. Universitat Autònoma de Barcelona, Spain

Jean-Philippe Mocho, Joint Production System Ltd., UK

Francesc Padrós, Departament of Animal and Vegetal Biology and Ecology. UAB, Spain

Neus Prats, Alexion/Astra Zeneca Rare Diseases, Spain

Yolanda Saavedra, University of Surrey, UK

Technical Coordination: Antonio Acosta, UAB, Spain

Coordinator Necropsy room: Lola Pérez, UAB, Spain

Syllabus

Topic 1. Introduction to the pathology and infectious diseases of laboratory animals

Teacher: Neus Prats

Topic 2. Definition, importance and microbiological characteristics of laboratory animals. Microbiota and its influence in animal models.

Teacher: Stephanie Buchheister

Topic 3. Diseases in rodents and rabbits.

- Basic concepts.
- Diseases in mice.
- Diseases in rats.
- Diseases in guinea pigs.
- Diseases in rabbits.

Teacher: Alys Bradley
Begoña García

Topic 4. Health monitoring in rodents and rabbits

- Importance of infectious diseases in animal experimentation
- Health monitoring following FELASA recommendations
- Evaluation of the risk of spread of infectious agents in animal housing facility
- Maintenance and control of a high quality sanitary status
- Practical case study

Teacher: Marion Berard

Topic 5. Clinical biochemistry and hematology studies

- Basic concepts and interpretation of results

Teacher: Mariona Aulí

Topic 6. Clinical signs in experimental animals

Teacher: Yolanda Saavedra Torres

Topic 7. Microbiology and diseases in carnivores

- Diseases in dogs, cats and ferrets
- Health monitoring: FELASA recommendations.

- Prevention of diseases, clinical examination and taking samples.

Teacher: Laurence Bonnet

Topic 8. Microbiology and diseases in fish

- 8.1 Microbiology and diseases in fish

Teacher: Francesc Padrós

- 8.2 Health monitoring and biosecurity in laboratory fish: FELASA recommendations

Teacher: Jean-Philippe Mocho

Topic 9. Microbiology and diseases in ruminants and pigs

- 9.1 Microbiology and diseases

Teacher: Mariano Domingo

- 9.2 Health monitoring: FELASA recommendations

Teacher: Patrick Hardy

Topic 10. Microbiology and diseases in primates

- Health monitoring: FELASA recommendations.
- Disease Prevention, clinical exploration, sampling.
- Primate diseases

Teacher: Jan Langermans

Topic 11. Microbiology and diseases of poultries

- Health monitoring
- Disease Prevention, clinical exploration, sampling.
- Poultries diseases

Teacher: Ricard March

Topic 12. Experimental and Toxicological pathology

Teacher: Neus Prats

CASE STUDY DISCUSSION (*Online December 1 and 3*)

PRACTICAL SESSIONS

1. Rodent necropsy: Methodology and sampling for serology, clinical biochemistry, haematology, bacteriology, molecular biology and histology

Teachers: Neus Prats
Estefania Contreras
Yolanda Saavedra

2. Pig necropsy: Methodology, organ and tissue sampling for histopathological studies

Teachers: Alex Cobos
Miquel Nofraries

Webinar Pre-attending session

29 October 2026 Webinar (times in Central European Time (CET))		
13:00 - 13:10	Presentation of the webinar	P. Vergara/ E. Contreras/Neus Prats
13:10 - 14:40	Introduction to the pathology and infectious diseases of laboratory animals	Neus Prats
14:40 -14:45	Conclusion	Neus Prats

UAB Attending Sessions

Monday (9 November 2026) Seminar F		
09.00-09.30h	Welcome	Patri Vergara/ Estefania Contreras Neus Prats
09:30-11:30	Topic 2	Stephanie Buchheister
11:30-12:00	Break	
12.00-13.00h	Topic 3	Alys Bradley
13.00-14.00h	Lunch	
14.00-16.00h	Topic 3	Alys Bradley
16.00-16.30h	Break	
16.30-18.00h	Topic 7	Laurence Bonnet

Tuesday (10 November 2026) Seminar F		
09.00-10.00h	Topic 3 (Practical Cases)	Begoña García
10.00-10.30h	Break	
10.30-11.30h	Topic 10	Francesc Padros
11.30-13.00h	Topic 10	J Philippe Mocho
13.00-14.00h	Lunch	
14.00-15.30h	Topic 4	Marion Berard
15.30-16.00h	Break	
16.00-17.30h	Topic 4	Marion Berard

Wednesday (11 November 2026) Seminar F		
09.00-11.00h	Topic 10	Jan Largermans
11.00-11.30h	Break	
11.30-13.00h	Topic 9.1	Mariano Domingo
13.00-14.00h	Lunch	
14.00-15.00h	Topic 9.1	Mariano Domingo
15.00-15.30h	Break	
15.30-17.30h	Practical session G1: Rodent Necropsy (lab. V0-137)	
15.30-18.30h	G2: Pig Necropsy (postmortem room)	

Thursday (12 November 2026) Seminar F		
9.00-11:00h	Topic 9.2	Patrick Hardy
11:00-11:30h	Break	
11.30-13.00h	Topic 6	Yolanda Saavedra
13.00-14.00h	Lunch	
14.00-15:30h	Topic 11	Ricard March
15.30-17:30h	Practical session G2: Rodent Necropsy (lab. V0-137)	
15.30-18.30h	G1: Pig Necropsy (postmortem room)	

Friday (13 November 2026) Seminar F		
09.00-11.00h	Topic 5	Mariona Aulí
11.00-11.30h	Break	
11.30-13.00h	Topic 8.1	Neus
13.00-14.00h	Presentation of case studies	Neus Prats
14.00-14.30h	Survey and farewell	Patri Vergara/ Estefania Contreras Neus Prats
	Lunch	

Webinars Post-attending sessions

1 December 2026 Webinar (times in Central European Time (CET))		
13:00 - 13:05	Presentation of the webinar	N. Prats/ P. Vergara
13:05 - 14:05	Primate case discussion	Jan Langermans
14:05 - 14:25	Break	
14:25 - 15:25	Fish case discussion	J.P. Mocho
15:25 - 15:30	Conclusion	Neus Prats

3 December 2026 Webinar (times in Central European Summer Time (CET))		
13:00 - 13:05	Presentation of the webinar	N. Prats/ P. Vergara
13:05 - 14:05	Rodent case discussion	Marion Berard
14:05 - 14:25	Break	
14:25 - 15:25	Large animal case discussion	M. Domingo
15:25 - 15:30	Conclusion	Neus Prats

