OBJECTIVES
The course is designed to provide the participants with advanced concepts of animal health and environmental monitoring. Simulation of health monitoring laboratory schemes is provided through interactive theoretical sessions. The participants are guided by expert instructors through the routine procedures, laboratory test programmes, the interpretation of results and action plans in case of confirmed infection.

CONTENTS
Traditional and emerging pathogenic agents; Relevant international guidelines; Selection of laboratory techniques for health monitoring of mice and rats; Practical applications in rodent units; Monitoring of incoming animals and biological samples; Disaster plan in case of confirmed infection; Influence of microbiota on animal models and monitoring techniques; Control of the macro- and micro-environment.

RECIPIENTS
Facility managers and supervisors, veterinarians, senior technologists, animal care and welfare officers, quality assurance managers.
| Day 1 | Why should be worried about health monitoring? | Traditional and emerging agents  
FELASA recommendations |
|-------|-------------------------------------------------|-------------------------------------------------|
|       | Laboratory techniques for health monitoring investigation | Reliability  
Alternative methods  
New laboratory techniques  
Interpretation of results  
Monitoring of biological specimens |
|       | Individually ventilated cages (IVCs) | Impact of IVC system on prevalence of infections and on health monitoring scheme |
|       | Health monitoring programmes in different caging systems | Proposed approaches to the health monitoring programmes with different caging systems  
• Open cages  
• Microisolators (static filter top cages)  
• Isolators  
• IVCs  
Costs of health monitoring programmes |
|       | Innovative approaches for health monitoring | PCR for environmental monitoring |
|       | Infection detected and confirmed | Positive findings: what to do  
Disaster plans |

| Day 2 | Incoming animals | Health certificate evaluation  
Quarantine procedures  
Alternative strategies  
• Importation of embryos  
• Rederivation by embryo-transfer  
Pros and cons of the different options |
|-------| Beyond pathogens: the monitoring of the microbiota | Influence of the microbiota on animal models  
Laboratory methods available |
|       | Microbiological monitoring of the environment | Surface microbiological tests  
Air microbiological assessment  
Water microbiological assessment |
|       | Monitoring of the physical parameters | Macroenvironment: meaning of temperature and RH monitoring  
Microenvironment: NH3, CO2, O2, temperature and RH |

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