

FONDAZIONE GUIDO BERNARDINI

BETTER EDUCATION FOR BETTER SCIENCE

TWO DAY COURSE

  credits: 12 points - 1.5 day by Swiss Veterinary Association - 30 CPD credits by Society of Biology

Facility Planning, Logistics and Technological Solutions

17th to 18th of September 2015

OBJECTIVES

The course covers the key aspects to be considered during the planning and designing of modern rodent facilities. Details related to different architectural solutions in relation to various needs for new constructions or renovations are included.

Different approaches to workflow organization, logistics, and procedures will be described.

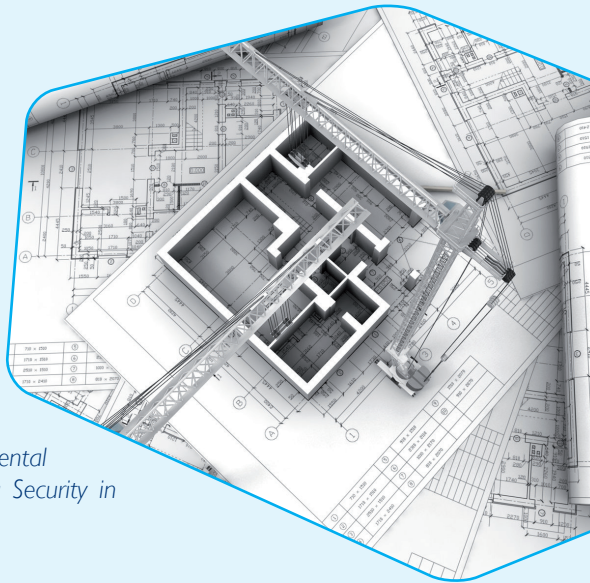
Work efficiency and personnel safety are presented in terms of state of the art technological solutions.

CONTENTS

Methodology to approach a new project; Guidelines and legislative requirements; Planning considerations and design drivers: research purposes, new construction or renovation, flexibility, operational issues, cost efficiency, environmental impact; Approach to workflows and logistics; Security in animal facilities.

RECIPIENTS

Facility managers and supervisors, architects, engineers, animal welfare officers, veterinarians.



Day 1	Regulatory perspective	Impact of animals, personnel and research on design Requirements of an animal programme Performance based guidelines Common issues during a site visit
	The planning and design process	Building requirements and cost considerations The design team and your role The planning process The design process
	Key architectural features	Holding and procedure rooms Air locks and passthroughs Cage processing areas Support spaces Architectural considerations for human occupants
	Planning and design of mechanical systems	Regulatory requirements Integration of mechanical and architectural designs Redundancy and failure analysis HVAC distribution, supply/exhaust locations, modeling tools Pressure relationships and controls IVC and HVAC integration
	Energy efficient mechanical systems	Demand based control systems Energy recovery systems Environmental impact of different technical solutions
	Operations and processes	The use of risk assessment in design Barrier concepts for isolation and containment Operational flows and adjacencies Process analysis
	Research and containment functional areas	Quarantine ABSL2 areas Imaging suits
	Impact of logistics on operations	Holding room operations Cage processing operations Capital and operational costs Other considerations
Day 2	Benchmarking	Research requirements Sizing metrics Benchmarking cost exercise
	Evaluation of the economical impact of technological choices: better before than after...	Budgeting: definitions and people involved Priorities Examples of selective criteria Direct and indirect savings (capital costs, running costs, etc.) Economical impact on health and safety When compromise is acceptable
	Case study of how modern technological solutions can improve safety and efficiency	Impact of different housing systems Barrier technologies (autoclaves, washing equipment, decontamination chamber, etc.) Impact of automation - advantages and limitations Expectation for technological solutions
	Security in animal facility	Risk assessment Structural solutions Procedural solutions Management of personnel
	Description of the participants' facilities	To be confirmed by the participants two weeks before the course