CIIMAR – Centro Interdisciplinar de Investigação Marinha e Ambiental

BOGA – Biotério de OrGanismos Aquáticos

CAL – AQUA

Ciências em Animais de Laboratório

PROFESSIONAL TRAINING CERTIFICATE (Dec. Reg. N.º 35/2002).

It certifies that **PATRÍCIA GOMES FERREIRA,** born in Creixomil, with the Citizen Card n.º 14095973, valid until 16th August 2016, completed successfully the course Laboratory Animal Sciences – Aquatic Organisms (**Ciências em Animais de Laboratório – Organismos Aquáticos** (CAL-AQUA)) organized by the Aquatic Organisms Bioterium (Biotério de Organismos Aquáticos (BOGA)) from CIIMAR – Interdisciplinary Centre for Marine and Environmental Research, held between 20th and 24th May 2013 with a total duration of 41 hours.

Porto, 07th June 2013

The Scientific Committee

Doctor Miguel Santos

ciimar

BOGA

BIOTÉRIO DE ORGANISMOS AQUÁTICOS

Area of Expertise: Life Sciences

Description of Contents:

The Use of Aquatic Animals in Animal Experimentation
Biology and anatomy of aquatic organisms
Ethics and 3 R's (replacement, reduction and refinement)
Animal welfare and scientific integrity
Portuguese and European Legislation
Alternative methods to animal models
Ethology and environmental enrichment in aquatic organisms
Recirculation aquatic systems (RAS)
Physico-chemical parameters in life support systems in RAS
Nutrition of most relevant aquatic species
Register and monitoring of aquatic organisms
Handling and basic techniques in fish
Handling and basic techniques in amphibians
Handling and basic techniques in invertebrates
Zebrafish Reproduction
Analyses of fish hematologic profile
Anaesthesia, analgesia and euthanasia
Basic principles of surgery in fish and cephalopods
Animal facilities biosafety
Animal facilities routines
Necropsy on aquatic organisms
Experimental design and planning

Remarks: The programme of the course follows the guidelines of Direção Geral de Alimentação e Veterinária (DGAV) and FELASA (Federation for Laboratory Animal Sciences Associations) in education and training of persons working with laboratory animals (Category B).

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