

EASYTRAIN ESR PROFILE

ESR 5

1) RECRUITING AND PhD ENROLMENT

- **Host institution (beneficiary):** University of Ferrara - UniFe (Ferrara, Italy) Department of Life Sciences and Biotechnology
- **Supervisory committee:** C Bertolucci (UniFe), FJ Sánchez Vázquez (UMU) and M Vidal (TILAMUR)
- **PhD awarding entity:** Universities of Ferrara and Murcia (UMU) (this is a co-tutelled PhD Thesis)
- **Duration:** 36 months

2) DESCRIPTION OF PhD RESEARCH PROJECT

- **Title:** Assessment of welfare of fish produced in aquaponics with organic diets
- **Objective:** To research on welfare issues of fish fed organic diets in an aquaponic system. Behavioural and physiological stress indicators will be evaluated to help safe-guarding fish welfare under production conditions. Normal growth without malformations, as well as fish health and diseases free conditions will be monitored.
- **Secondments:** 6 months in SPAROS (Portugal), 12 months in TILAMUR (Spain) and 9 months in UMU (Spain)

3) REQUIREMENTS AND SELECTION CRITERIA

- *Mobility and academic rules*
- *Knowledge and experience in fish aquaculture*
- *MSc-degree in Biology or a related discipline*
- *Theoretical knowledge of zoology, animal physiology and behaviour*
- *Practical experience in molecular and cellular biology*
- *Affinity and preferably experience in fish management*
- *Good level of English proficiency (understood, spoken and written)*
- *Skills in scientific writing (reports, papers, etc.) and data presentation*
- *Be highly motivated*
- *Creativity and high level of independency*
- *Team spirit and collaborative predisposition*
- *Reference letters*

4) ADDITIONAL INFO

The PhD programme at Ferrara and Murcia Universities:

The normal duration of a PhD in Italy and Spain is 3 years. All our PhD students are embedded in the PhD Programme in "Evolutionary Biology and Ecology" at Unife and in "Integration

and Modulation of Signals in Biomedicine” at UMU. The ESR will be also provided with training organized by the Institute for Higher Studies IUSS 1391 (UniFe) and the International School of Doctorate (UMU), which are structures that offer complementary and interdisciplinary activities to PhD students.

Research at the UniFe research group:

The research facilities that University of Ferrara (Unife) has available are molecular and cellular biology laboratories, chronolabs to maintain animals in controlled photoperiodic conditions, set-ups to recording locomotor activity in adult and larvae specimens, facilities for animal breeding and reproduction, including a fish-house authorized by Italian Ministry of Health, and a fully equipped workshop. The journals where the group has published in recent years include Plos Biology, Current Biology, Plos Genetics, PNAS, Scientific Reports (<https://scholar.google.com/citations?user=CvuN6YUAAAAJ&hl=it>). For more information about the Unife Research group: <http://sveb.unife.it/it/ricerca-1/laboratori/behavioural-biology/bertolucci>.

Research at the UMU research group:

Both freshwater and marine facilities will be available to investigate fish physiology in chronolabs where the main environmental signals (light and temperature) will be tightly controlled. Self-feeding systems and fish behavioural analysis tools will be also available. A research support service (ACTI) brings together the units and sections with instruments on molecular biology, image analysis, tissue cultivation, etc. Additional information about the research carried out by the IP can be found here: <https://orcid.org/0000-0002-2366-9714>.