



# Fully Funded MRes Scholarship EU/UK applicants

## Multi-Trophic Aquaponics in Cities

Swansea University  
Centre for Sustainable Aquatic Research (CSAR)

**Research project:** Multi-trophic aquaponics in urban developments - innovation in the circular economy

**Keywords:** IMTA, Aquaponics, Aquaculture, Trophic efficiency

**Location:** Swansea

**Salary:** £11,702 p.a.

**Hours:** Full Time

**Contract Type:** Fixed-Term/Contract

**Closing date:** 15th November 2019

**Start date:** 1 April 2020

Multi-use buildings can regenerate city centres but can be energy inefficient and have a high carbon footprint. A new revolutionary way to lower the carbon footprint of a multi-use spaces is to incorporate aquaponics systems and bio-fences to produce food and algae and achieve nutrient recycling. Focusing on the circular economy by using waste streams to create new products, buildings can become an asset to the residents rather than a drain on the environment.

The Centre for Sustainable Aquatic Research (CSAR) at Swansea University has developed expertise in finfish aquaculture, aquaponics and algae culture which can be incorporated into fish feeds. This project will examine how food waste can be used to grow microalgae and produce fish feed rich in omega -3's that can then be fed to aquaponics raised fish such as Tilapia. The aim is to investigate likely candidates of fish, crustaceans and microalgae to form part of this unique process and address two key challenges: (1) Incorporating aquaponics units and algal production units, and (2) Finding viable uses of waste products from both fish production and aquaponics plant production. Based at the Centre for Sustainable Aquatic Research (CSAR), this is a collaborative project with Powell Dobson.

**Academic requirements:** Candidates should have a 2.1 or above (>65%) in their undergraduate degree in Biosciences or a related subject.

**Residency criteria:** Due to funding restrictions, this scholarship is open to UK/EU candidates only.

**To Apply:** Send a 2-page CV and a one-page motivation letter by email to [c.garciadeleaniz@swansea.ac.uk](mailto:c.garciadeleaniz@swansea.ac.uk)