



## PHD Studentship in Life Cycle Assessment

School of Biosystems & Food Engineering

<http://www.ucd.ie/biosystems/>

SpiralG - Production of Phycocyanin from the *Spirulina Arthrospira* Sp. Revisiting the Sourcing, Extraction and Co-Valorization of the Whole Algae in the Frame of an Industrial Biorefinery Concept

Production of sufficient quantities of sustainably produced biomass as feedstock for the growing bioeconomy represents a key challenge for the biobased industry. SpiralG will build a first-of-a-kind, algae-based demonstration plant with a progressive production capacity of 10MT of phycocyanin per year. SpiralG will develop a blueprint for the sourcing, extraction and co-valorization of the whole algae in the frame of an industrial biorefinery concept.

This PhD project will focus on developing a consequential life cycle assessment model for the biorefinery products and their value chains, while enabling LCA to be used at design, implementation and testing phases of the overall project. There will be a specific focus on interacting with industry partners during all of these stages of the project to best understand the value chain and for on-site data collection.

The ideal candidate will have an excellent degree in a quantitative science-based discipline such as biosystems and food engineering, marine science, environmental science, industrial ecology or similar. Some knowledge or experience of the algae industry and life cycle assessment would be helpful.

Excellent scientific, organisational and project management skills, a commitment to research, excellent problem-solving skills, the ability to work independently and as part of a multi-disciplinary team and excellent interpersonal and communications skills will all be necessary.

**Stipend:** €18,500 per annum (+ contribution of fees up to €6,945 per annum)

**PhD Duration:** up to 4 years

Informal requests for further details can be made to Dr Fionnuala Murphy and Professor Kevin McDonnell ([fionnuala.murphy@ucd.ie](mailto:fionnuala.murphy@ucd.ie)).

Closing date: 25<sup>th</sup> July 2018

Expected start date: September 2018

To apply please send your CV and cover letter detailing motivation and career plan applications by email to [fionnuala.murphy@ucd.ie](mailto:fionnuala.murphy@ucd.ie) for the attention of Dr Fionnuala Murphy and Prof Kevin McDonnell.

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