



M2ex – Exploiting metal-microbe applications to expand the circular economy

Marie Skłodowska-Curie Action H2020-MSCA-ITN-EJD-2019

ESR8-NUIG: Effect of TM on the microbial community structure and activity of anaerobic digesters

Job description

We are looking for a motivated Early Stage Researcher (ESR) in the field of bioprocess engineering, environmental engineering and microbial ecology, to study the effects of trace elements on the microbial community structure and activity of anaerobic digesters. The research fellow will be hosted at the National University of Ireland Galway (NUIG). This group has long expertise in bioprocess technology for wastewater treatment, and in microbial ecology and environmental microbiology, leading several projects in this area. He/she will be recruited by NUIG for a period of 36 months with the aim of obtaining a joint PhD degree between NUIG and Universidad Pablo de Olavide (UPO).

The M2ex European Joint Doctorate offers to the ESR8 an innovative series of Network-wide training events to ensure a high-quality, engaging and inspirational training environment including secondments in CSIC (Spain) and Empresa Metropolitana de Abastecimiento y Saneamiento de Aguas de Sevilla S.A. (Spain).

Objectives

The objectives are to investigate the impact of TM on the microbial communities of long-term (over 2 years) (i) anaerobic digesters and (ii) chemostats.

Expected Results

The link between TM and (i) performance and (ii) community structure and activity in digesters and in carefully controlled and monitored chemostats.

Candidate's profile

We are looking for a candidate with an Environmental Engineering, Biology, Microbiology, Biochemistry or equivalent degree and a master's degree in a similar area. Candidates with primary/master's degrees from another discipline but with a strong knowledge of microbial ecology may also be considered. Additionally, knowledge of bioprocess technology would be highly advantageous.

Our Offer

You will receive an employment contract for 3 years according to the EU contribution for ITN recruitments and general conditions at the host institution. It includes full social security coverage and will start in September 2020.

Enrolment in Doctoral degree(s): NUIG / UPO