



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

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

ESR15-UP/CIIMAR: Phytoremediation of contaminated soils aiming metal recovery – including microorganisms role and bioaugmentation possibilities.

Job description

We are looking for a motivated Early Stage Researcher (ESR) in the field of metal bioremediation. The research fellow will be hosted at the Faculty of Sciences of Universidade do Porto (UP) and CIIMAR. The research group involved have long expertise in phytoremediation as well as in microbial processes, including bioremediation, and on metal analysis and speciation, leading and participating actively in several projects on these topics. He/she will be recruited by Faculty of Sciences of UP for a period of 36 months with the aim of obtaining a PhD degree in co-tutel of UP and Université de Limoges (UNILIM).

The M2ex European Joint Doctorate offers to the ESR15 an innovative series of Network-wide training events to ensure a high-quality, engaging and inspirational training environment including secondments in research units at UNILIM (France) and CSIC (Spain), and in companies, namely C&F Società Agricola S.r.l. (Italy) and Smart Waste (Portugal).

Objectives

To investigate the possibility of using phytoremediation to recover metals from soil after metal contamination (namely through metal-rich wastewater effluents or AD liquid digestates). Research on suitable plant species (with metal uptake capacities) for metal phytoremediation. Research also on the bioaugmentation potential application as biotechnological tool to improve phytoremediation. Moreover, it is intended to evaluate the possible uses of the biomass obtained during phytoremediation.

Expected Results

Development of strategies for metals management to create opportunities for their recovery and reuse in the context of circular bioeconomy.

Candidate´s profile

We are looking for a candidate with Master Degree related to Environmental Sciences or Engineering, Chemistry, Biochemistry, Biotechnology or Biology.

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): UP / UNILIM