

Applications are invited for 2 PhD student positions ("Early Stage Researchers" (ESRs)) to be funded by the Marie Skłodowska Curie Innovative Training Network ANSWER - "Antibiotics and mobile resistance elements in wastewater reuse applications: risks and innovative solutions" within the Horizon 2020 Programme of the European Commission, in the framework of urban wastewater treatment and reuse.

Description

We are looking for talented, highly motivated and enthusiastic junior scientists, able to plan and prioritise their work in order to meet deadlines, with a preferential background in environmental sciences, analytical chemistry, plant physiology, molecular biology, microbial ecology and microbiology. Previous experience in fields directly related to the specific positions is a plus. Excellent research skills and analytical abilities are required, fluency in English (both spoken and written), proactive communication skills and problem solving as part of a team, strong record keeping, great work ethic and initiatives are essential characteristics.

Applicants need to fully respect three eligibility criteria:

1. Early stage researchers (ESRs): are those who are, at the time of recruitment by the host organisation, in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. This is measured from the date when they obtained the degree which formally entitles them to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited or seconded, irrespective of whether or not a doctorate is or was ever envisaged.
2. Conditions of international mobility of researchers: Researchers are required to undertake transnational mobility (i.e. move from one country to another) when taking up the appointment. At the time of selection by the host organisation, researchers must not have resided or carried out their main activity (e.g. work, studies, etc.) in the country of their host organisation (i.e. SPAIN) for more than 12 months in the 3 years immediately prior to their recruitment. Compulsory national service and/or short stays, such as holidays are not taken into account.
3. English language: Network fellows (ESRs) must demonstrate that their ability to understand and express themselves in both written and spoken English is sufficiently high for them to derive the full benefit from the network training.

To apply, please provide:

1. a cover letter detailing your suitability for the position in question;

2. a detailed CV;
3. original or certified copies of all tertiary-level academic transcripts and grading schemes;
4. two recommendation letters from Academics;
5. evidence of proficiency in English language;
6. a recent photograph.

*All the above certifications should be applied/translated in English language.

All applications will be evaluated by a committee, consisting of representatives from the host institutions, with equality and based strictly on the candidates' skills, whereas issues as gender, ethnicity, disability, etc. will be irrelevant to the selection.

All applications should be sent by email to Dr. D. Josep Maria Bayona (jbtqam@cid.csic.es).

Nr of positions available: 2

Research Fields

Environmental science - Water science

Career Stage

Early stage researcher or 0-4 yrs (Post graduate)

Research Profiles

First Stage Researcher (R1)

Benefits

ESRs participating in "ANSWER" ITN will receive a salary (approx. 2500 EUR per month), determined by the Marie Curie Actions/Horizon 2020 guidelines.

For more information, please see:

http://ec.europa.eu/research/mariecurieactions/careers_en.htm

Important dates

Deadline for applications: November 30, 2015

Date for candidate selection: December 15, 2015

Date to start the contract: January 2016

Comment/web site for additional job details

PhD position 1: *Title: Uptake of antibiotic and antibacterial contaminants by crops*

Brief description:

- (1) investigate the fate of antibiotics in water-soil-root system;
- (2) evaluate the uptake and translocation of antibiotics and their metabolites prone to promote antibiotic resistance bacteria;
- (3) identify key physico-chemical properties affecting uptake, translocation and metabolization of antibiotics in field-scale irrigation and greenhouse experiments;
- (4) develop strategies to reduce the antibiotics' uptake by crops from

soils.

Duration: 36 months

Location: Institute for Environmental Assessment and Water Research (IDAEA-CSIC)

Contact: Dr. Josep M. Bayona; e-mail: josep.bayona@idaea.csic.es

PhD Position 2: Title: *Genetic analysis of endophytic bacteria in edible plants by high-throughput sequencing*

Proposed tasks: (1) evaluate taxonomic changes on endophytic bacteria related to irrigation water quality (16S RNA sequencing) using *Daucus carota* as a model species;

(2) quantify the prevalence of secondary metabolism enzymes in the roots' microbiome that may be related to degradation/metabolism of pollutants (metagenome analysis);

(3) detect and quantify plasmids bearing ARG plasmid assembly/characterization.

Duration: 36 months

Location: Institute for Environmental Assessment and Water Research (IDAEA-CSIC)

Contact: Dr. D. Benjamin Piña; email: bpcbmc@cid.csic.es