

Job description	Selection code: 227_CRI_IF
<p>Type of post and number of positions vacant</p>	<p>N. 5 (five) temporary positions for 36 months within the project INTERFUTURE G.A. n° 722642 - From microbial interactions to new-concept biopesticides and biofertilizers, a Marie Skłodowska-Curie Innovative Training Network Action (MSCA-ITN-EID). The selected candidates will be employed the first 18 months at Fondazione Edmund Mach (FEM) as junior researcher (R4 CCPL) in the field of plant pathology, applied microbiology and entomology. Then, for the last 18 months they will be employed by an industrial partner as described below (Description of the positions).</p>
<p>Description of the positions</p>	<p>ESR1: Novel biofertilisers based on endophytic bacteria. Innovative approaches to bridge plant-microbe interaction research and bio-product development: 18 months at FEM and 18 months at Desarrollo Agrícola y Minero, S.A., Zaragoza, Spain (DAYMSA); ESR2: Untapping the keg of microbial bioproducts using innovative approaches to cultivation. New bio-based products from plants: 18 months at FEM and 18 months at Desarrollo Agrícola y Minero, S.A., Zaragoza, Spain (DAYMSA); ESR4: Characterization of stimulators of the phyllosphere microbiota as innovative biocontrol products for plant defence: 18 months at FEM and 18 months at BIPA, Londerzeel, Belgium; ESR10: Development of a commercial liquid food bait with addition of bioactive microorganisms to improve attractiveness and specificity of traps for <i>Drosophila suzukii</i>: 18 months at FEM and 18 months at BIOBEST, Westerlo, Belgium; ESR11: Conventional delivery strategies for bioproducts based on microbial bioproducts: 18 months at FEM and 18 months at Desarrollo Agrícola y Minero, S.A., Zaragoza, Spain (DAYMSA).</p>
<p>Organisational structure and manager for the position</p>	<p>Research and Innovation Centre (CRI), Department of Sustainable Ecosystems & Bioresources. Manager: Prof. Ilaria Pertot.</p>
<p>Requirements necessary for participation for all ESRs</p>	<ul style="list-style-type: none"> • Master degree in the field of Plant and Agricultural Sciences, Biology, Biotechnology; • To be at the time of recruitment in the first four years of research career (full-time equivalent research experience*) calculated from the date on which the Master degree was obtained; • Knowledge of written and spoken English (minimum level B2), evaluated during the interview. <p>* 'Full-time equivalent research experience' is measured from the date when the researcher obtained the degree entitling him/her 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) – even if a doctorate was never started or envisaged.</p>
<p>Exclusion from the recruitment process</p>	<ul style="list-style-type: none"> • Candidates that have been already awarded a Doctoral Degree; • Candidates that have resided or carried out his/her main activity in the country of the host institute for more than 12 months in the last three years immediately prior to the reference recruitment date; • Candidates that have been temporary staff, project workers and staff employed or worked on a freelance basis for the FEM in an equivalent role for a duration of more than 18 months (also discontinuously).

<p>Job details</p>	<p>The candidates will be employed for 18 months at FEM under the supervision of Prof. Ilaria Pertot, Prof. Gianfranco Anfora, Dr. Michele Perazzolli and Dr. Gerardo Puopolo.</p> <p>ESR1, ESR2 and ESR11 will identify key features of microbial and host ecology that can be exploited to optimise the application of bio-fertilisers based on endophytic microorganisms. The performance of formulated innovative bio-fertilisers based on endophytic microorganisms will be tested at Desarrollo Agrícola y Minero, S.A. (Zaragoza, Spain) under the supervision of Dr. David Bernad. During these 18 months, the ESRs will be directly employed by the industrial partner Desarrollo Agrícola y Minero, S.A.</p> <p>ESR4 will characterize substances that can be exploited as novel biocontrol products by stimulating phyllosphere microflora analysing the mechanism of action on phytopathogenic and beneficial microorganisms. The efficacy of these novel products will be assessed at BIPA (Londerzeel, Belgium) under the supervision of Dr. Andrea Nesler. During these 18 months, the ESR will be directly employed by the industrial partner BIPA.</p> <p>ESR10 will characterize microbiota and bioactive volatile compounds involved in the multitrophic interactions of <i>Drosophila suzukii</i>, and develop a specific attractive lure combined with an efficient trap design. The commercial scale-up and the practical application of the new <i>D. suzukii</i> baits and traps in monitoring and control methods will be developed at BIOBEST (Westerlo, Belgium) under the supervision of Dr. Felix Wackers. During these 18 months, the ESR will be directly employed by the industrial partner BIOBEST.</p> <p>Moreover, the candidates should be enrolled as PhD student at:</p> <ul style="list-style-type: none"> • the University of Newcastle under the supervision of Dr. Carlo Leifert (ESR1, ESR2, and ESR11); • the University of Reims Champagne Ardenne under the supervision of Dr. Essaid Ait Barka (ESR4); • the University of Molise under the supervision of Prof. Antonio De Cristofaro (ESR10).
<p>Duties / Tasks</p>	<p>In addition, the ESR will be required to undertake training according to the INTERFUTURE training programme that integrates traditional doctoral activities (research-oriented) with product development-oriented training:</p> <ol style="list-style-type: none"> i.network wide training activities (workshops, summer and winter schools, seminars) and courses, planned for all ESRs across the EU-wide network; ii.local training, based on the development of the individual research project, with a strong tutoring by highly qualified supervisors, also including important complementary skill training; iii.secondments, providing additional skills, networking and inter-sectoriality; iv.participation in international Conferences, which allow the ESRs to measure the relevance of their research in a wider scientific context and to disseminate their results.
<p>Keywords</p>	<p>Bio-fertilisers, endophytic microorganims, plant bio-fertilisation, phyllosphere microbiota, microbial stimulators, bio-pesticides, insect chemical ecology, multitrophic interactions, trap bait, <i>Drosophila suzukii</i></p>

<p>Recruitment methods</p>	<p>By qualifications (30 points) and interview (70 points). The results of the recruitment process will be based on the sum of points obtained from qualifications and interview. In the preselection phase, applications will be evaluated by all the involved supervisor.</p>
<p>Criteria for the pre-selection (qualifications)</p>	<p>On the basis of the information contained in the CV or demonstrated by candidates, the best 3 applicants for each ESR, based on the highest scores obtained following the criteria below, will be selected and admitted to the interview phase (maximum 30 points):</p> <ol style="list-style-type: none"> 1. relatedness of master thesis (Title and abstract) to the above ESR topics (maximum 15 points: 0 point= no relation, 5 points=minimal relation, 10 point=medium relation, 15=perfect relation); 2. experience in Microbiology, Plant Pathology and Molecular Biology, as researcher (Fellowships, Stipends, Grants), employee or stage in qualified labs/research organizations/universities for ESR1, ESR2, ESR4 and ESR11 or Experience in Applied Entomology and Insect Chemical Ecology, for ESR10 (2 points per year of experience with a maximum of 5 points); 3. number of publications with Impact Factor (IF) in above mentioned topic (see point 2 of this list) (1 point per each paper with IF with a maximum of 5 points); 4. number of scientific and technical publications in the above mentioned topic (see point 2 of this list) (0.5 point per each with a maximum of 5 points); 5. Knowledge of Spanish at a minimum level corresponding to A2, self-certified in the pre-selection process, would be considered for ESR1, ESR2 and ESR11 (1 point); 6. Knowledge of French or Dutch at a minimum level corresponding to A2, self-certified in the pre-selection process, would be considered for ESR4 and ESR10 (1 point).
<p>Subjects covered in the interview</p>	<p>During the interview, that will be held in English, the following knowledge will be verified (maximum 70 points):</p> <p>For ESR1, ESR2, ESR4 and ESR11:</p> <ul style="list-style-type: none"> • The role played by microorganisms in plant growth, procedures to isolate microorganisms from plant tissues, microbial traits associated with control of plant diseases (minimum score 20, max. 30); • Identification at species level of microorganisms, molecular markers for monitoring microorganisms in the environment, workflow for the determination of plant microbiome (minimum score 20, max. 30). <p>For ESR10:</p> <ul style="list-style-type: none"> • The role played by the multitrophic interactions between plant, microorganisms and phytophagous insects in host plant recognition and susceptibility. The use of semiochemicals in integrated pest management strategies (minimum score 20, max. 30); • Identification and characterization of biologically active volatiles in insects by means of chemical, microbiological, electrophysiological and behavioural assays (minimum score 20, max. 30). <p>For all ESRs:</p> <ul style="list-style-type: none"> • Knowledge of the activities and organization of Fondazione Edmund Mach

	<p>(maximum 5);</p> <ul style="list-style-type: none"> The candidate, should have the European Computer Driving Licence (ECDL) or equivalent knowledge, knowledge of Office package or similar (Word, Excel, Power point), statistic software as R, SPSS or Statistica. Also in case of possession of the ECDL, the computer skills will be assessed during the interview (minimum score 2, max. 5). <p>The candidate must obtain a minimum mark at the interview of 50/70 points.</p>
<p>Knowledge of languages in the context of the Common European Framework of Reference for Languages (CEFR): level of knowledge and method of ascertainment</p>	<p>During the interview, for the admitted candidates, will be verified the knowledge of written and spoken English (general and scientific) at a minimum level corresponding to B2. In the event that it is ascertained that the candidate does not have knowledge of English equivalent to level B2, s/he will be excluded from the recruitment process.</p>
<p>Calendar and location candidates admitted to the interview/test</p>	<p>Candidates admitted to the interview phase will be informed of the date and location via e-mail (NO PEC) to the contact address written the CV, at least 10 days before the interview date. The interviews will be held at the Fondazione E. Mach in San Michele all'Adige (TN).</p>
<p>Salary, gross annual remuneration and other information</p>	<p>The salary offered for all positions will be in line with the Marie Skłodowska-Curie (MSCA) programme that offers highly competitive and attractive salary and working conditions. It consists of a:</p> <ul style="list-style-type: none"> living allowance (= 3.110 euro/month; the MSCA rules apply a correction factor to this amount to allow for the cost of living in different countries: 1.067 to Italy, 1.11 to France , 0.976 to Spain, 1.000 to Belgium and 1.203 to United Kingdom); A monthly mobility and family allowance (= 600 and 500 euro/month depending on the family situation). <p>It must be noted that the living allowance is a gross EU contribution to the salary costs of the researcher. Consequently, the net salary results from deducting all compulsory (employer/employee) social security contributions as well as direct taxes (e.g. income tax) from the gross amounts. The rate indicated here is for researchers devoting themselves to their project on a full-time basis. The mobility and family allowance is a fixed amount, regardless of the country of recruitment, and may be taxable depending on the country in question. More details in Sections 5.1, 5.2 and 5.3 of the guide for applicants to H2020-MSCA-ITN-2016.</p> <p>At FEM, for the first 18 months, it will be offered to the candidate a temporary employee contract “CCPL Fondazioni”, Fourth level Researcher, starting from a yearly Euro 33.357,19 + TFR (severance pay). The exact gross salary will be confirmed upon appointment.</p> <p>Furthermore, PhD tuition fees for the ESR are covered. In addition to their individual scientific projects, all positions will benefit from further continuing training, which includes summer schools and secondments, a variety of training courses as well as transferable skill courses, active participation in workshops and conferences, and exposure to SMEs and Universities from the different European countries involved in INTERFUTURE.</p>

<p>Deadline for presentation of applications and deadline for the conclusion of the recruitment procedure</p>	<p>Applications must be submitted by and no later than 23:59 (CET), the date and time of receipt shown in the electronic mail account of the Foundation shall be valid) on 30/03/2017. The recruitment procedure will terminate at the latest by the end of May, 2017.</p>
<p>How to present applications: The deadline is April 2, 2017 at 23:59 (CET).</p>	<p>Applications to participate in the selection must be sent in electronic format via e-mail address (NO PEC) to curricula@fmach.it, indicating the recruitment code in the object of the email (227_CRI_IF R4 temporary interfuture). In cases of access issues due to disability, please contact +39 0461 615542. To apply, please email the following documents to FEM (curricula@fmach.it):</p> <ol style="list-style-type: none"> i) Application form (AF) completed, signed and saved as Surname Name_AF.pdf. The template is provided in the webpage of the announcement. ii) Curriculum vitae (CV), including contact details, education, work experience, technical and scientific publications, prizes/awards, language skills. The CV must be saved with file extension: Surname Name_CV.doc, or .pdf. iii) PDF copy of the Master thesis. The thesis must be saved with file extension: Surname Name_MASTER.pdf; iv) Official academic record of undertaken courses & grades Master degree. v) A motivational letter in which the applicant describes his or her motivation to pursue postgraduate studies and to conduct the research project applied for. The applicant is asked to mention the ESR position s/he apply for on the motivational letter. In case of application to multiple positions, the applicant is asked to motivate his interest in the projects selected. vi) Contact details (email and telephone number) of three referees willing to write confidential letters of recommendation. <p>The deadline is April 2, 2017 at 23:59 (Italian time).</p>
<p>PhD enrollment application</p>	<p>In parallel, according to the ESR position they apply for, candidates have to apply for PhD by filling the online application form available at each University website.</p> <ul style="list-style-type: none"> • University of Newcastle (ESR1, ESR2, and ESR11): please check the related link in the webpage of the announcement published in FEM website. • University of Reims (ESR4): please check the related link in the webpage of the announcement published in FEM website. • University of Molise (ESR10): please check the related link in the webpage of the announcement published in FEM website.
<p>Proof of documentation in the event of hiring and relative deadlines</p>	<p>By at least 10 days before the date of hiring, the candidate must provide the following documents, on penalty of cancellation:</p> <ul style="list-style-type: none"> • Certificate of Master degree.
<p>Results of the selection</p>	<p>The results of the selection will be communicated to the candidates at the end of the recruitment procedure individually via e-mail (NO PEC), sent to the contact address written in the CV.</p>
<p>Hiring conditions and categories covered by Law 68/99</p>	<p>It is underlined that the FEM applies D.lgs. 368/2001, including article 5, paragraph 4 bis, which excludes the possibility of legitimately prolonging or renewing temporary contracts for equivalent roles for more than 36 months. Furthermore, FEM reserves the right to carry out appropriate checks in relation to the truthfulness of the information stated in the application and the enclosed CV. Finally, candidates are invited to state whether they belong to the categories recognised according to Law 68/99 by indicating it in the CV.</p>

Handling of data

The CV must include the following phrase, otherwise the candidature will not be taken into consideration: **I agree to the handling of my personal data in accordance with D.lgs. 196/2003.** The candidate takes full responsibility for all the information included in the application form and CV.

Before carrying out the tests and/or evaluation interview, the candidate shall be identified and asked to complete a declaration, if this has not already been presented, stating:

- that he/she has the requirements indicated in the notice;
- that there are no reasons for incompatibility provided for by the law or linked to interests of any kind with reference to the scope of the employment;
- that he/she has no criminal convictions and is not subject to measures related to the application of prevention measures, civil decisions and administrative provisions registered in the criminal record;
- the truthfulness of the declarations made in the application/ curriculum and an undertaking to communicate any subsequent changes.

For any matters not covered by this recruitment notice, reference should be made to "[Regulations for the recruitment of human resources at the Fondazione Edmund Mach](#)".

The Director General
Dr. Sergio Menapace
