



JUNIOR RESEARCHER (M/F) Biotecnology - 1 VACANCY

Reference: CCMAR/IJ/06/2021

The Algarve Centre for Marine Sciences (CCMAR) opens a call for a Junior Researcher (M/F) of any nationality, including stateless candidates, under an uncertain term employment contract within the research project “*BIOEXTREMDEGRAD: Bioaugmentation and conjugative plasmid transference using bacteria from extreme environments to enhance biodegradation of recalcitrant pollutants in WWTP granular sludge*”, ref. PTDC/CTA-AMB/7782/2020 funded by the State Budget, through the Portuguese Foundation for Science and Technology, I.P./MCTES.

Job Summary and Duties:

The project aims to apply innovative strategies to develop and optimize processes contributing to the objective of achieving complete degradation of emerging pollutants in WWTP systems with aerobic granular sludge by exploring the potentialities of microorganisms from extreme environments and catabolic enzymes encoded by genes that are in plasmids.

The tasks to perform by the Junior Researcher include:

- Develop the planned activities under the research project:
 - Selection of bacterial strains with a role in the degradation of target drugs;
 - Selection of degradative strains carrying plasmids with genes putatively involved in catabolic pathways;
 - Reactors start-up and operation to form half-matured aerobic microbial granules;
 - Cultivation of bioaugmented and non-bioaugmented mature aerobic microbial granules;
 - Biodegradation of pollutants by bioaugmented and non-bioaugmented granules;
- Co-supervision of students developing activities in the framework of the project.
- Writing of reports, scientific papers and other documents for the project.

Relevant Legislation:

Decree-Law nr 57/2016, from 29th August, altered by Law nr 57/2017, from 19th July, (RJEC).

Portuguese Labour Law, approved by Law nr 7/2009, from 12th February in its current form.

Decree – Law nr 124/99, from 20th April in its current form.

Regulatory Decree nr 11-A / 2017, of 29th December.

Decree – Law nr 29/2001 of 3rd February.

Portuguese Administrative Procedure Code



Starting Date: The contract is expected to start in September 2021 and will last for the time necessary to complete the work plan.

Workplace: The workplace is CCMAR (Gambelas Campus of the University of Algarve)

Working Schedule: 35 hours per week.

Monthly Remuneration: Gross monthly Remuneration is 2.134,73€, in accordance with subsection a), section 1, article 15 from Law nr. 57/2017, 19th July, and with the remuneration position at initial level predicted in article 2 of Regulatory Decree nr. 11-A/2017, of 29th December, correspondent to level 33 at Tabela Remuneratória Única, approved by Order no . 10-B/2020 of 20th March 2020.

Application Period: Between 21th June 2021 and 5th July 2021.

Required Profile:

1. To hold a PhD in Biology, or similar course with a specialization in genetics.
2. The candidate must hold experience in the last 5 years in:
 - a. Environmental bioremediation processes.
 - b. Analysis of organic compounds by chromatographic techniques.

Provision of false documentation will be punished by law.

Preference will be given to applicants that have:

1. Participation in projects involving the areas/techniques indicated in point 2 of the required profile;
2. Experience in genetics, namely mapping and identifying genes of interest and metataxonomic studies of bacterial populations in extreme environmental samples and in bioreactors, and experience in molecular biology, namely bacterial transformation, construction and maintenance of large collections of bacterial isolates, selection of strains with plasmids carrying target DNA markers, preparation of short and long DNA fragments' libraries for massive DNA sequencing technologies;



3. Experience in wastewater treatment, using both aerobic and anaerobic bioreactors at laboratory scale and at pilot plant scale and experience in biodegradation of recalcitrant pharmaceuticals and identification of their metabolites through chromatographic methods.
4. Experience in students co-orientation in the fields/techniques indicated in point b in the last 5 years.
5. Evaluation of the candidate selected publications involving the fields/techniques indicated in point 2 of the required profile in the last 5 years. The nature of the scientific production will be valued over the publication metrics or the publishing entity.

Selection panel: in accordance with article 13^o of RJEC the selection panel is composed of Professor Adelino Canário, Full Professor at the University of Algarve, researcher and President of the CCMAR Board of Directors (President); Professor Maria Clara Semedo da Silva Costa, Assistant Professor at the University of Algarve and researcher at CCMAR (member) and Professor Eduardo Pinho Melo, Associated Professor at the University of Algarve and researcher at CCMAR.

Evaluation and Selection Procedure:

The evaluation and selection of applications will consider the candidate's scientific and curricular career path focusing on the relevance, quality, and timeliness of the criteria referred to in Article 5 (2) (a) to (d) of the RJEC, as follows (scored on a scale from zero-twenty (0-20):

CA) Scientific and technological production in the last five years, deemed most relevant by the candidate to perform the project tasks, in accordance with the value defined (30%);

CB) Activities of applied research or based on practice, developed in the last five years, that the candidate considers with greater impact for the tasks to perform in the project, in accordance with the value defined (50%);

CC) Activities of extension and dissemination of knowledge, namely in the promotion of the culture and the scientific practices and developed in the last five years, that the candidate considers more relevant and experience in orientation (10%);

CD) Management activities of scientific projects and programmes of research, technology and innovation, or experience in observation, monitoring and evaluation of the scientific and technological system, or higher education, in Portugal or abroad. Included here are the activities of preparation and submission of applications for science, technology and innovation projects (10%).

Criteria CA will be classified in accordance with the content of the scientific publications involving the areas/techniques indicated in point 2 of the required profile in the last five years (30%). Criteria CB will be evaluated according to its relevance for the tasks to be developed in the project, namely: Participation in projects involving the areas/techniques indicated in point 2 of the required profile in the last five years (15%); Experience in genetics, namely mapping and identifying genes of interest and metataxonomic studies of bacterial populations in extreme environmental samples and in bioreactors, and experience in molecular biology, namely bacterial transformation, construction and maintenance of large collections of bacterial



isolates, selection of strains with plasmids carrying target DNA markers, preparation of short and long DNA fragments' libraries for massive DNA sequencing technologies (10%); Experience in wastewater treatment, using both aerobic and anaerobic bioreactors at laboratory scale and at pilot plant scale and experience in biodegradation of recalcitrant pharmaceuticals and identification of their metabolites through chromatographic methods (10%); Experience in student supervision in the fields/techniques indicated in point 2 of the required profile in the last 5 years (15%).

The period of five years referred in the evaluation criteria may be increased by the selection panel, at the request of the candidate, when justified on grounds of suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work legally protected.

Functioning of the Selection Panel

Evaluation is performed through the documental assessment of the motivation letter (including a personal assessment of the relevance of the activities of the last five years for the present application, highlighting the chosen scientific publications), and the CV that will include the activities of the specific field and of the scientific and professional path of the applicant and of up to 3 scientific papers of the candidate's choice.

The score of each candidate is obtained from the sums of the scores of each criteria multiplied by the weights according to the formulation:

$$C = CA*30\% + CB*50\% + CC*10\% + CD*10\%$$

After determining the final score C of all candidates, each member of the selection panel will rank the candidates according to the final scores assigned to them from the highest to the lowest. This is followed by the vote to the first place and for each successive place. A candidate is selected when they receive the majority of votes. If this does not happen in the first round of voting, the least ranked candidate is eliminated, and the procedure is repeated with the remaining candidates. In case of a draw the vote of the President of the selection panel is decisive.

The selection panel will write minutes of the meetings with a description of the evaluation and selection process including an ordered list of candidates, their classification, and the final decision. The CCMAR Board of Directors shall validate the final decision of the selection panel.

In the event that no applicant has the necessary profile, the selection committee reserves the right to close the call without any recruitment. In the event that the selected person does not take up the position because of failure to comply with documentary requirements or any other reason or later, during the contract, if they resign the jury reserves the right, upon convenience and opportunity, to assign the post to the next applicant in accordance with the ranking positions.

Application submission process and mandatory documents:



Applications must be complete and submitted through the CCMAR website <https://www.ccmар.ualg.pt/list/job>. Applications are considered to be correctly submitted only after the candidate has received a confirmation e-mail from CCMAR. Applications (in English) must include:

- a Motivation Letter (in English) including a personal assessment of the relevance of the activities of the last five years for the present application, highlighting the chosen publications.
- detailed CV (in English) that will include the activities of the specific field and of the scientific and professional path of the applicant, organized according to the evaluation criteria CA to CD.
- a copy of the Doctoral Degree Certificate (if awarded by a Portuguese Higher Education Institution) or a copy of the certificate of recognition of the Doctoral Degree by a Portuguese Public Higher Education Institution or by DGES – Directorate General for Higher Education (if the degree was awarded by a foreign University).
- the complete declaration of honour available in the application platform for applicants that cannot provide a copy of the doctoral certificate (by a Portuguese Higher Education Institution) or of the certificate of recognition of the doctoral degree (if the degree was awarded by a foreign University), as indicated above.
- email contacts of up to 3 referees.
- up to a maximum of 3 scientific papers chosen by the candidate

Non-compliance with these documents/information determines the immediate rejection of the application.

Results:

The lists of admitted and excluded candidates, and the final classification list, shall be posted on the CCMAR website at <https://www.ccmар.ualg.pt/list/job-closed> and all candidates will be notified by email.

Preliminary Hearing and Final Decision Deadline:

After the assessment of all applications the jury will write a provisional minute with the description of the admission process, assessment and selection, including the list of the ordered candidates and their classification and decision. All candidates will be notified by email of the provisional decision of the jury. In accordance with article 121 of the Portuguese Administrative Procedure Code, after being notified by electronic email all candidates have 10 working days, counted from the date of dispatch of the notification by electronic email, to contest the preliminary decision sending an email to the jury of the present call. The final decision will be validated by the CCMAR board of Directors and all candidates will be notified by electronic email within 90 days counted of the application deadline.

Candidates holding degrees awarded by a foreign university should have their degree recognized in Portugal no later than the date indicated in the communication of selection for the position. Non-compliance justifies exclusion from the procedure. Information about the recognition procedures can be obtained at any Portuguese university or [here](#). The board of directors reserves the right, upon request from the candidate, to extend the compliance period provided it does not impact negatively the programmed activities.



Disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honour, their respective disability degree, type of disability and communication / expression means to be used during selection period on their application form, under the regulations above.

CCMAR's non-discrimination and equal access opportunities policy – No candidate can be privileged, benefited, jeopardised or be deprived of any right or exempt of any claim in regards to descendent, age, gender, sexual orientation, marital status, economic situation, origin, social economy, genetic heritage, disability, chronic disease, nationality, ethnicity, territory of origin, language, religion, politics, ideology or union membership.

The members of the jury approved this announcement on June 15th 2021.

