



Università
Ca' Foscari
Venezia

Dipartimento di Scienze Ambientali,
Informatica e Statistica

Dipartimento di Scienze Ambientali, Informatica e Statistica
Università Ca' Foscari Venezia
Campus Scientifico – Via Torino 155, 30170 Mestre (VE)
P.IVA 00816350276 - CF 80007720271
www.unive.it/dais

Research fellowship - Università Ca' Foscari Venezia (Italian law 30 December 2010, n.240, art. 22)

The present document in English is to be considered as a mere summary of the main provisions of the notice of competition which is available in Italian at the following ([link](#)). The text in Italian is the official text of the notice of competition for all legal intents and purposes and, in the event of non-conformity with the present document, it shall prevail.

Description

The Department of Environmental Sciences, Informatics and Statistics at Università Ca' Foscari Venezia invites applications for fellowship in:

TITLE: Neglected microbial diversity of coastal hypersaline environments and marine transition areas: study of its dark matter and hidden treasures (Maricostems).

SSD: BIO/19

Tutor: Dr. Bessem Chouaia

Duration: 12 months

Abstract: Transitional waters include a plethora of different dynamic environments, such as estuarine areas, coastal lagoons, salterns, and salt marshes, showing heterogeneous features. These ecosystems are subject to repeated and sudden variations of several environmental parameters (e.g., pH, temperature, salinity) and sometimes to strong anthropic stress, affecting microbial communities that need a high degree of adaptation. Most of these environments and their "microbial" communities, including the viral component, are underrated, and their chemical and biological diversity is still underestimated. Thus, these environments deserve to be studied in detail to understand their full ecological role and potential to host pathogens and/or new microbial strains (or neglected species), having unique characteristics exploitable for discovering new bioactive molecules.

The Venice lagoon will be studied for its microbial (prokaryote and eukaryote) and viral biotas. To this aim, the environmental biodiversity will be analyzed to depict its functionality and potential to host possible pathogens or microorganisms precious for biotechnological applications. The studies will be carried out using metagenomic and metatranscriptomic approaches to capture the huge genetic variability of the studied communities and provide valuable information about their biodiversity and function. Hence, it will allow the depiction of the communities, their functions, and their ecological role (e.g., biogeochemical cycles). Specific genes related to peculiar metabolic pathways (e.g., biodegradation of recalcitrant compounds) or resistance characters (antibiotics and/or heavy metals) representing important environmental and social issues will also be investigated. Since the selected environments could represent a reservoir for pathogens, also harbouring resistance genes, the study will supply a scenario of the actual harmful phenotypes. Nevertheless, these environments represent a rich treasure of hidden microbial diversity with high potential for medical and/or environmental applications. Therefore, the presented molecular biology



approaches will help disclose the microbial potential selected by the studied coastal environments.

In this context, we are seeking a motivated early career scholar with demonstrated expertise in the fields of microbial or molecular ecology and bioinformatics to work on an Italian-funded project. This is a full-time, one-year position. The successful candidate will be working within the Molecular Ecology Lab in the Department of Environmental Sciences, Informatics and Statistics at The Ca' Foscari University of Venice. He or she will be getting samples from the Venice lagoon and processing them for DNA and RNA sequencing, performing metagenomic and metatranscriptomic analysis, performing data science and statistical analyses, and co-authoring peer-reviewed manuscripts.

Who can apply

Prospective candidates are expected to hold a master's degree Master's degree in microbiology, microbial ecology, molecular ecology or related fields, **or related areas** or equivalent foreign qualification or related disciplines.

Ca' Foscari encourages applications from researchers with positive evaluation in all the criteria in individual proposals such as Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar.

Researchers having successfully completed Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar funded projects are warmly encouraged to apply.

Duration of contract: 12 months, approximately starting: **December 2023**

Stipend: The research fellowship **amounts to 19.367,00 Euros per year**, including taxes and social charges.

Deadline for submission of applications: Oct. 24th, 2023 at 12.00 noon.

How to apply:

Candidates should submit:

1. The application form;
1. A motivation letter (max 1 page) that details your interest in the position and how you fit the description along with their CV in European format, duly dated and signed, both to be enclosed as a one single.pdf file. ([link](#)). The CV should include a bibliography and any experiences relevant to the responsibilities described above;
2. A copy of a valid identity document (either Identity Card or Passport);
3. (If available) Evaluation Summary Reports of Marie Skłodowska Curie Actions -



- Individual Fellowships/ ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) individual proposals having passed all the evaluation thresholds;
4. (If available) Details of Marie Skłodowska Curie Actions - Individual Fellowships, ERC Starting Grants, FIRB (Italian Fund for basic research investments)/ SIR Scientific Young Independence Research funded projects;
 5. Declaration on availability to held the interview in remote ([Link](#)) to be send via email at the following address: segreteria.dais@unive.it with the object: **Neglected microbial diversity of coastal hypersaline environments and marine transition areas: study of its dark matter and hidden treasures (Maricostems)**. – Prof. Bessem Chouaia
 6. All documents, qualifications and publications relevant for the selection procedure (please, see the notice [link](#)).
- All the schemes of the quoted documentation are available on the website ([link](#)).

How to submit your application

Applications should be submitted by the online procedure, available on the notice webpage ([link](#))

Or submit here:

Link:

<https://apps.unive.it/domandeconcorso-en/accesso/dais2023chouaianeglected>

The candidate, after the uploading, will receive a submission number and an e-mail acknowledging receipt of his/her application.

The candidate, if necessary, could access the procedures for updating any data and materials by the link provided by the e-mail, in any case any updates must be made no later than the deadline **Oct. 24th, 2023 12.00 noon**.

Please note that the University can be contacted for any support needs by the candidate until 24 hours prior to the deadline.

Please note that in case of a high number of applications and / or weight of the materials loaded by the candidates the system might become slower. Therefore, it is suggested not to start the process close to the deadline.

NB: The University does not take on responsibility for wrong or late communication of addresses, nor for any communication problem not depending on the University.

Evaluation

Up to 100 points, specifically:

For qualifications, publications and possible tests, from 0 to 60;

For interview, from 0 to 40.

Candidates are admitted to the interview if assessment of the qualifications in a



score equal to or greater than 42/60

Selection procedure

Short-listed candidates will be invited for interview on November 3rd, 2023 at 10:00 A.M. Italian time

The interview will be held remotely only. Further details on how to connect online will be published alongside the convocation notice.

The list of candidates admitted to the interview or any postponement will be announced on **Oct. 30th, 2023** by notice that will be published on the website of this university ([link](#)) and on the web pages foreseen by current legislation.

This communication constitutes to all intents and purposes an official call and candidates will not receive any call or home communication. Therefore, candidates are required to present themselves, at the online interview, with a valid identification document, without prior notice, on the days and times indicated here. Any postponements will be made known on the day by means of a notice which will be published on the website of this university ([link](#)) and on the web pages envisaged by current legislation.

The interview:

The interview questions will cover:

- Microbial Ecology,
- Molecular ecology,
- Bioinformatics,
- Ecology,
- Good knowledge of Italian,
- Good knowledge of English

Information

The grant holder must express acceptance within 7 days from receiving the communication and must sign the relevant contract at the competent office. The grant holder will be sign the relevant contract by affixing remote digital signature (<https://www.agid.gov.it/it/piattaforme/firma-elettronica-qualificata/ottenere-firma-elettronica>). In the impossibility of acquiring the digital signature remotely, it will be possible to proceed with the acquisition of the signature by correspondence or in presence at the secretariat of The Department of Environmental Sciences, Informatics and Statistics.

(1) The contract will be considered completed and fully effective between the parties, after the acquisition of all the signatures and the repertory of the deed.

- The contractor must attach a photocopy of the identity card.



Università
Ca' Foscari
Venezia

Dipartimento di Scienze Ambientali,
Informatica e Statistica

Dipartimento di Scienze Ambientali, Informatica e Statistica
Università Ca' Foscari Venezia
Campus Scientifico – Via Torino 155, 30170 Mestre (VE)
P.IVA 00816350276 - CF 80007720271
www.unive.it/dais

Information and contacts

Candidates may find further details about the application process and the research project in the official call published on the following ([link](#))

For further information please contact Segreteria del Dipartimento di Scienze Ambientali, Informatica e Statistica Tel 041/2348526 - 041/2348531 – segreteria.dais@unive.it

Venice,

The head of the Department of
Scienze Ambientali, Informatica e Statistica
Prof. Salvatore Orlando

Digitally signed