Finanziato dall'Unione europea NextGenerationEU | Ministero dell'Università e della Ricerca | Italiadomani PIANO NAZIONALE DI RIPRESA E RESILIENZA | THE Tuscany Health Ecosystem

Research fellowship on "Advanced analysis of pharmaceutical metabolism using integrative organoid and microbiota models for the development of personalized therapeutic strategies" for project "OMID: Organoid-Microbiome Integration for Drug screening" CUP H73C24001000001, PI: dr.ssa Sabrina Tamburini, funded by BAC University of Siena "THE - TUSCANY HEALTH ECOSYSTEM", PNRR M.4 C.2. INV. 1.5 – NEXTGENERATIONEU, cod. ECS00000017, CUP B83C22003920001 – Università Ca' Foscari Venezia

(Italian law 30 December 2010, n.240, art. 22 and subsequent amendments and additions)

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 Molecular Sciences and Nanosystems at Università Ca' Foscari Venezia invites applications for a fellowship **lasting 12 months** titled "**Advanced analysis of pharmaceutical metabolism using integrative organoid and microbiota models for the development of personalized therapeutic strategies**", **SSD: BIOS-15/A, GSD: 05/BIOS-15**, project "OMID: Organoid-Microbiome Integration for Drug screening" CUP H73C24001000001, funded by the National Recovery and Resilience Plan (PNRR), Mission 4 "Education and Research", component 2 "From research to business", investment line 1.5 " reference to the research program of the University of Siena "THE - TUSCANY HEALTH ECOSYSTEM", cod. ECS00000017, CUP B83C22003920001 Funded by the European Union – NEXT GENERATION-EU, tutor and principal investigator: dr. Sabrina Tamburini.

The fellowship is intended to provide the successful candidate with the opportunity to pursue his/her own research while benefiting from the range of expertise at Università Ca' Foscari Venezia.

Abstract:

The complexities of Individual Variability in Drug Response (IVDR) arise from variable response rates between different drugs, highlighting a significant proportion of patients who may not benefit, leading to adverse drug reactions (ADRs). The goal of precision medicine to tailor interventions based on genetic, environmental and lifestyle factors encounters obstacles with IVDR, requiring improved biomarkers. The proposed project aims to study drug efficacy and efficiency using organoids, in vitro models that faithfully reproduce in vivo tissue structures, as they have been shown to play a fundamental role in studying drug-host interactions with the aim of developing personalized precision therapy. Furthermore, pharmacomicrobiomics, which considers the ability of the individual gut microbiota to influence drug response through its impact on pharmacodynamics, offers possibilities to improve drug discovery and efficacy, while reducing ADRs. The project will therefore adopt a multidisciplinary and integrative approach, evaluating drugs in silico and in vitro through

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comprehensive analyses, including the response of organoids and microbiota, in line with the principles of precision and personalized medicine to improve drug development and therapeutic activity.

Who can apply

Prospective candidates are expected to hold a **Master's degree in Biology, Biotechnology, Chemistry** (or equivalent) and professional scientific curriculum suitable for carrying out research activities.

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.

The following qualifications are considered as evaluation criteria:

a. PhD graduation;
b. the completion of attendance of a PhD course pending the awarding of the title;
c. specialization diplomas and certificates of attendance of post-graduate specialization courses, obtained both in Italy and abroad, the carrying out of documented research activities at public and private entities with contracts, scholarships or assignments both in Italy and abroad;
d. research experience abroad.

Duration of contract: 12 months, approximately starting in **December 2024.**

Stipend: The research fellowship amounts to **Euro € 28.373,78** per year gross of the recipient, net of the expenses to be sustained by the Provider.

Deadline for submission of applications 4th December 2024, at 12.00 a.m. (Rome CET).

How to apply:

Candidates shall submit:

1. The application form;
2. A motivation letter (max 1 page) along with their CV in European format, indicating the degree grade, duly dated and signed, both to enclosed as a one single.pdf file (link); a declaration must be appended in the footnote of the curriculum, pursuant to the Italian DPR 445/2000 and subsequent amendments and additions, that the information provided corresponds to the truth. Moreover, the candidates have to consent to the use of their personal data for the purposes of this selection procedure pursuant to the Italian Legislative Decree 196/2003 and to the EU Regulations 2016/679;

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3. The attachments called “obligations and understanding” and “participation and compatibility”;
4. All documents, qualifications and publications relevant for the selection procedure (please, see the notice - link);
5. A copy of a valid identity document (either Identity Card or Passport);
6. (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;
7. (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;
8. Declaration on availability to conduct the interview in remote (Link) to be send via email at the following address: ricerca.dsmn@unive.it

All the schemes of the quoted documentation are available on the website (link).

Incomplete applications will be rejected.

How to submit your application

Applications should be submitted by the online procedure, available on this link:

https://apps.unive.it/domandeconcorso-en/accesso/dsmn-ar-pnrr-bac-omid

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 4th December 2024, at 12.00 noon.

Foreign citizens not yet in possesion of the Italian Tax Code can use the following link https://apps.unive.it/utils/cf to obtain a temporary one and be able to proceed with the request.

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

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for any communication problem not depending on the University.

Topics of the interview:

- Biochemical tests and screening of chemical compounds;
- Knowledge of techniques for cell cultures and organoids;
- Knowledge of microorganism manipulation;
- Knowledge of microbiota study;
- Assessment of knowledge of the foreign language English by carrying out part of the interview in English.

Evaluation

Up to 100 points, specifically:
For qualifications, publications and possible tests, from 0 to 60;
For interview, from 0 to 40.

Selection procedure

The interview will be on 16th December 2024 at 3.00 p.m.

by remote at the link:

meet.google.com/yme-ornm-coj

The list of candidates admitted to the interview or any postponements will be made known on 9th December 2024 through a notice that will be published on the website of this University (link) and on the web pages required by current legislation.

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 the Research Office, email: ricerca.dsmn@unive.it, Ph: 0412348633/8514.

The Head of Department
of Molecular Sciences and Nanosystems
Prof. Maurizio Selva
f.to digitalmente ex art.24 Dlgs 82/2005 (CAD) e ss.mm.ii.

VISTO La responsabile del procedimento
La Segretaria del Dipartimento di Scienze Molecolari e Nanosistemi
Sonia Barizza: barizza@unive.it Telefono: 041-2348535

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