



Dipartimento di Scienze
Molecolari e Nanosistemi

Università
Ca' Foscari
Venezia

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

Research fellowship on "Development and Recycling of personal protective equipment for cycrcular economy industry" - 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 Molecular Sciences and Nanosystems at Università Ca' Foscari Venezia invites applications for a fellowship in:

Title: "Development of peptide inhibitors of class IIa HDAC proteins for cancer therapy"

SSD: BIO/10

Coordinator and tutor: Dr. Alessandro Angelini

Duration: 12 months

Abstract:

Cells decisions depend on epigenetic modifications that are fundamental in regulating gene expression. Genetic or epigenetic aberrations affecting the histone acetylation/deacetylation balance can result in altered gene expression profiles ultimately leading to cancer. Histone deacetylation is mediated by class IIa HDAC enzymes. Aberrant expression of these proteins has been associated with the initiation and progression of numerous types of cancer fostering the development of class IIa HDAC inhibitors (HDACis). Unfortunately, the first generation of HDACis showed high toxicity and poor efficacy. New therapeutic molecules with higher selectivity are urgently needed. Toward this goal, we propose to use bicyclic peptides, a molecular format that combines properties of both proteins and small organic molecules. Similar to proteins bicyclic peptides exhibit good binding affinity and specificity. As small organic molecules, they have a small size, a high proteolytic stability and a good tissue penetration. Bicyclic peptides capable of selectively blocking class IIa HDAC enzymes will be generated using innovative combinatorial approaches. Selected molecules will be chemically synthesized, purified, characterised and their efficacy tested in vitro and in vivo. Targeting class IIa HDAC enzymes with bicycle peptides has no precedent and therefore represents an original strategy for the development of potent and specific cancer therapeutics.

The research may be carried out in English.

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.

Who can apply

Prospective candidates are expected to hold a master's degree in **Chemical Sciences** or related disciplines;

Will be considered preferential titles:

- PhD;
- the conclusion of the frequency of a PhD course pending the awarding of the degree;

- specialization diplomas and certificates of attendance of post-graduate specialization courses, obtained both in Italy and abroad, the carrying out of documented research activities with public and private subjects with contracts, scholarships or assignments both in Italy and abroad;
- a period of more than three months, even if not consecutive, has been spent abroad for research activities;
- degree thesis on topics related to the themes of the call.

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: in **June 2021**).

Stipend: The research fellowship amounts to **20354,99 Euros** per year, including taxes and social charges.

Deadline for submission of applications: May 14th 2021 at 12.00 noon (italian time)

How to apply:

Candidates should submit:

1. The application form;
2. A motivation letter (max 1 page) along with their CV in European format, duly dated and signed, both to enclosed as a one single.pdf file. ([link](#))
3. A copy of a valid identity document (either Identity Card or Passport);
4. (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;
5. (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;
6. Declaration on availability to held the interview in remote ([Link](#)) to be send via email at the following address: _
7. 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:

<https://apps.unive.it/domandeconcorso-en/accesso/dsmn-2021-prin-2017>

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: **May 14th 2021**.

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 an 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.

Selection procedure

The interview will be on **May 21st 2021 at 10.00 am (italian time)**. The interview will be held in remote. The short-list of the candidates admitted to the interview, or any postponement, will be published on the University's webpage on **May 17th 2021** ([link](#)).

The interview aims to ascertain skills on the following topics:

- assessment of the knowledge of the principles of the peptide synthesis and purification;
- assessment of the knowledge of the principles of direct evolution of peptides by using combinatorial techniques;
- assessment of the knowledge of the techniques used for the characterization of the peptide structure and the peptide-protein interaction;
- Assessment of the Italian language for foreign candidates
- Assessment of knowledge of the foreign language English

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 Secretariat of the Department of Molecular Sciences and nanosystems, Tel. 041 2348633 - e.mail: ricerca.dsmn@unive.it.

Venice, 20/04/2021

The Director of the Department of
Molecular Sciences and Nanosystems
prof. Pietro Riello
Digitally signed 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 fax 041-2348517