



Courtesy translation of D.R. n. 172/2023

For more details on the selection process, please refer to the Italian version of D.R. n. 172 /2023 available at <http://www.hunimed.eu/it/lavora-con-noi/>

SELECTION PROCEDURE FOR RESEARCH FELLOWSHIP

Research Program Title	Novel strategies to overcome NETS resistance to pharmacological treatment: focusing on scaffold proteins and their interacting pathways
Tutor	Prof. Andrea Gerardo Antonio LANIA
Scientific Area	06 – Medical Sciences
Gross amount of the fellowship	20.000,00 Euro
Duration of the fellowship	20 months
Objectives of the research	<p>Pancreatic neuroendocrine tumors are frequently characterized by resistance to medical treatment making them often difficult their management. Previous studies conducted in Lab Lania revealed that cytoskeleton actin-binding protein filamin A (FLNA) is an important player in regulating Pan-NETs behavior. Indeed, FLNA is required for SST2R expression at the cell surface, internalization, post-endocytic fate determination, and coupling with effectors for signal transduction, thus determining responsiveness to pharmacological therapy. Filamin A is cleaved by calpain, producing fragments that can translocate to the nucleus. Although the differences in the subcellular localization of FLNA fragments may dictate its role in cancer progression, less is known about the impact of FLNA proteolysis in NETs. Moreover, FLNA acts as a scaffolding molecule for over 90 known protein-binding partners, including mTOR and NF-κB. Among the evidence, a strong link to inflammation-mediated tumor promotion is provided by the activation of NF-κB and STAT3 pathways. Since chronic inflammation is implicated in NET development, the crosstalk between FLNA and inflammatory pathways may have a role in mediating the resistance to everolimus.</p>

<p>Activities to be carried out</p>	<ul style="list-style-type: none"> • The candidate will conduct in vitro experiments, work with cell lines and primary cultures, • perform biochemical assays (including western blot, apoptosis, cell proliferation, migration/adhesion testing) to investigate the molecular mechanisms of NET progression. • The candidate will also study new therapeutic strategies in NETs, testing the effectiveness of different drugs and the pathways involved, so he will also have to show motivation and learning ability.
<p>Work place</p>	<p>PIEVE EMANUELE - Milan</p>
<p>Mandatory requirements</p>	<ul style="list-style-type: none"> • Master's Degree in Pharmaceutical Biotechnology
<p>Selection process</p>	<p>Application for admissions must be submitted at the following link: https://pica.cineca.it/humanitas</p> <p>No hard copy of the application must be sent by post. At first access, applicants need to register by clicking on "Register" and completing the requested data. If applicants already have LOGINMIUR credentials, they do not need to register again. They must access with their LOGINMIUR username and password in the relevant field LOGINMIUR. Applicants must enter all data necessary to produce the application and attach the required documents in PDF format.</p>
<p>Selection criteria</p>	<p>Selection criteria are predetermined by the Selection Committee. As part of the selection process, the Committee will evaluate the curriculum, titles and publications presented by the candidate and will consider, in particular:</p> <ul style="list-style-type: none"> • Experience in cell biology, cell culture and western blot. • Motivation and interest in the oncology field. • Inclined to work in a team. • Advanced knowledge of the English language.



FURTHER INFORMATION:

In the event of any conflict between Job Opening text and Italian D.R. text, the Italian version will prevail.

For more details on the selection process please refer to the **D.R. n. 172/2023** (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.