Courtesy translation of D.R. n. 022/2025

For more details on the selection process, please refer to the Italian version of

D.R. n. 022/2025 available at http://www.hunimed.eu/it/lavora-con-noi/

SELECTION PROCEDURE FOR RESEARCH FELLOWSHIP

Research Program Title	**Elucidating the pathomechanisms by which PAM mutations predispose to pituitary neuroendocrine tumors (PitNETs) formation**
Tutor	Dr. Giampaolo TRIVELLIN
Scientific Area	06 – Medical Sciences
Gross amount of the fellowship	27.600 Euro
Duration of the fellowship	12 months
Objectives of the research	Background: Pituitary neuroendocrine tumors (PitNETs) impact health via hormonal hypersecretion and brain invasion, with most cases lacking known driver mutations. We recently identified germline mutations in the PAM gene in PitNET patients. PAM, a multifunctional protein, regulates hormone amidation and secretion, with altered expression linked to cancer mortality. Hypothesis: PAM defects predispose to PitNETs by disrupting its non-catalytic functions, unveiling a novel disease mechanism. Aims: We aim to elucidate how PAM loss drives pituitary tumorigenesis via three approaches: 1. Investigate how PAM mutations affect intracellular pathways and hormone secretion in tumor cell lines. 2. Study pituitary-specific PAM loss in mice to assess tumorigenesis and systemic effects. 3. Evaluate PAM staining as a biomarker in human PitNETs.

	Expected Results: Our findings will reveal PAM's non-enzymatic roles in PitNET development, provide systemic insights, and assess PAM as a diagnostic/prognostic tool, advancing genetic testing and early diagnosis.
Activities to be carried out	The work will include: • Mammalian cell culture, including performing functional studies of different genetic mutations; • establishing and phenotyping mouse models.
Work place	PIEVE EMANUELE - Milan
Mandatory requirements	• Master degree in Biology, Molecular Biology, Medical, Industrial, veterinary and pharmaceutical biotecnologies, • PhD or equivalent; • Adequate scientific and professional background to carry out the research activity described in this call.
Selection process	Application for admissions must be submitted at the following link: https://pica.cineca.it/humanitas 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.
Selection criteria	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 in particul will consider: • Good knowledge of the English language, • experience with molecular biology techniques and mammalian cell culture,

	• experience in working with mouse models.

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. 022/2025** (http://www.hunimed.eu/it/lavora-con-noi/) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.