

HUMANITAS UNIVERSITY

Selection procedure for a Type B Research Fellowship in Medical Sciences in compliance with art. 22 of law 240/2010 – Ref. D.R. 002/2017

Humanitas University invites applications for a position as Research Fellow in Medical Sciences.

Research Program Title	Molecular pathways linking inflammation and cancer
Research supervisor - Tutor	Prof. Alberto Mantovani
Scientific Area	06 - Medical sciences
Gross amount of the fellowship	21.000 Euro
Duration of the fellowship	12 months
Objectives of the research	Expression and purification of PTX3 domains and PTX3 muteins with different oligomerization properties. Analysis of the interaction of PTX3, PTX3 domains and muteins with components of the extracellular matrix and with Complement molecules.

The work place is in Rozzano - Milano.

A brief description of the: project, activities to be carried out, mandatory requirements to take part into the selection process, information on the application procedure and on the selection criteria are presented in the following.

RESEARCH PROJECT:

The general objective of the project is to continue previous studies conducted by the Applicant on molecular and cellular pathways linking inflammation and cancer. A major focus will be on a molecule cloned by the Applicant (PTX3) acting as an extrinsic oncosuppressor in mouse and selected human tumors (e.g. CRC) by regulating complement driven, chemokine amplified recruitment and functional skewing of TAM. The Candidate will be involved in studies aimed at further dissect the role of PTX3 in carcinogenesis. In particular PTX3 interaction with extracellular matrix components will be characterized. PTX3 domains will be produced and purified to investigate the minimal requirements for the interaction with Complement components essential in carcinogenesis.

ACTIVITIES TO BE CARRIED OUT:

Expression and purification of PTX3 domains and PTX3 muteins with different oligomerization properties. Analysis of the interaction of PTX3, PTX3 domains and muteins with components of the extracellular matrix and with Complement molecules..

MANDATORY REQUIREMENTS:

In order to be considered for the post candidates must hold Master's Degree in Biological Sciences or Biotechnology or equivalent title; Doctoral degree.

SELECTION PROCESS:

Applications should be written on plain paper according to the application form attached (ALLEGATO A) to the Rectoral Decree n. 002/2017 (available at page <http://www.hunimed.eu/it/lavora-con-noi/>) and must be produced, under penalty of exclusion, within twenty (20) days from the day of the publication of the notice. If the specified deadline falls on a public holiday, the deadline is the next working day.

The application form, duly signed, under penalty of exclusion, can be sent in one of the following ways:

1. via certified email (PEC) by sending the application and all relevant documents, in PDF format, to hunimed@pec.it (quoting in the subject: "*Research Project title as stated in the table above*" with the indication scientific area relevant for this post. Please note that certified email can only be received by other PEC; therefore will not be considered valid, the application sent by an e-mail address that is not certified as PEC.
2. Either via registered letter with acknowledgment of receipt, courier or hand-delivered to the Rector of the University Humanitas, "Segreteria del Rettorato della Università Humanitas" via Manzoni No. 113-20089 Rozzano (MI), by the deadline mention above specifying on the envelope the "Research Project title as stated in the table above", the name and address of the candidate.

Applications must include:

1. a curriculum vitae dated and signed, containing the description of any professional or research experience (including publications and participation at conferences);
2. a copy of a valid document of identity or, for Non-EU citizens, a copy of applicant's passport.

For EU citizens or equivalent, that which has been declared in the application form (ALLEGATO A) assumes substitute value of certifications according to DPR 445/2000;

Applications can also include:

3. a dated and signed list of the titles presented;
4. a dated and signed list of the publication presented;

All the titles and publications presented together with the application can be produced on plain paper together with a declaration made according to the model attached (ALLEGATO B) to the Rectoral Decree n. 112/2016 (available at page <http://www.hunimed.eu/it/lavora-con-noi/>)

As part of the selection process, a Selection Committee will evaluate the curriculum, titles and publications presented by the candidate.

SELECTION CRITERIA:

The candidate should have a work experience acquired in a research laboratory, better in biochemistry. Required job skills include cell culture, isolation of leukocytes, biochemical

analysis, (in particular electrophoretic techniques, basic knowledge of techniques for protein purification and mass spectrometry, analytical techniques by HPLC). The ability to run experiments based on surface plasmon resonance for the study of molecular interactions will be a selection criterion. Fluent knowledge of English language is required.

FURTHER INFORMATION:

For more details on the selection process please refer to the Rectoral Decree n. 112/2016 (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to ufficiodocenti@hunimed.eu or contact the following number +39 02.8224.5642.