

HUMANITAS UNIVERSITY

Selection procedure for 1 Type B Research Fellowship in Life Sciences in compliance with art. 22 of Law 240/2010

Humanitas University invites applications for 1 position as Research Fellow in Life Sciences.

Research Program Title	<p>“Valutare il ruolo dei neutrofili nel cancro e nell'immunità antitumorale.”</p> <p><i>Courtesy translation:</i> To assess the role of neutrophils in cancer and anti-tumor immunity.</p>
Tutor	Dott. Sebastien JAILLON
Scientific Area	06 - Medical Sciences
Gross amount of the fellowship	25.000 Euro
Duration of the fellowship	12 months
Objectives of the research	<p>Cancer-related inflammation, including the presence of inflammatory leukocytes in the tumor microenvironment is recognised as a hallmark of cancer. Therefore, exploration of the tumor immune contexture is crucial for the development of new therapeutic approaches, as demonstrated with the immune checkpoints.</p> <p>In preclinical models, it was revealed that the essential role played by neutrophils in resistance against primary sarcomagenesis by driving type 1 polarisation of a subset of unconventional T cells (UTCs).</p> <p>Using a multitask approach, combining state-of-the-art technologies with the advantage of genetically engineered mice, models of primary carcinogenesis and investigation in human samples, the project aims to study the mechanisms involved in the neutrophil-UTC antitumor axis.</p>
Activities to be carried out	The Research Fellow will carry out the following activities in the context of the research project:

	<ol style="list-style-type: none"> 1. Animal handling (Murine models of carcinogenesis); 2. Blood and tissues sampling from mice; 3. Cellular Biology (purification and culture of cells from blood and tissues, culture of cell lines); 4. Flow cytometry; 5. Molecular Biology (PCR, Real-time PCR, RNAsequencing).
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The work place is in Pieve Emanuele - 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:

Cancer-related inflammation, including the presence of inflammatory leukocytes in the tumor microenvironment is recognised as a hallmark of cancer. Therefore, exploration of the tumor immune contexture is crucial for the development of new therapeutic approaches, as demonstrated with the immune checkpoints.

In preclinical models, it was revealed that the essential role played by neutrophils in resistance against primary sarcomagenesis by driving type 1 polarisation of a subset of unconventional T cells (UTCs).

Using a multitask approach, combining state-of-the-art technologies with the advantage of genetically engineered mice, models of primary carcinogenesis and investigation in human samples, the project aims to study the mechanisms involved in the neutrophil-UTC antitumor axis.

ACTIVITIES TO BE CARRIED OUT:

The Research Fellow will carry out the following activities in the context of the research project:

1. Animal handling (Murine models of carcinogenesis)
2. Blood and tissues sampling from mice
3. Cellular Biology (purification and culture of cells from blood and tissues, culture of cell lines)
4. Flow cytometry

5. Molecular Biology (PCR, Real-time PCR, RNAsequencing)

MANDATORY REQUIREMENTS:

In order to be considered for the post candidates must hold a PhD.

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 will consider, in particular:

- Strong background in the fields of tumor immunology and/or inflammation.
- Substantial experience in mouse handling.
- Substantial experience in flow cytometry.
- Ability to work independently as well as in a collaborative research team.
- At least one publication as first author.

FURTHER INFORMATION:

For more details on the selection process please refer to the **Rectorate Decree n. 037/2020** (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.