



Courtesy translation of D.R. n. 091/2022

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

*D.R. n. 091/2022 available at <http://www.hunimed.eu/it/lavora-con-noi/>*

**SELECTION PROCEDURE FOR A RESEARCH FELLOWSHIP IN COMPLIANCE WITH ART. 22 OF LAW 240/2010**

|                                |  |
|--------------------------------|--|
| Research Program Title         | <b>Mechanisms of complement activation in cancer: role of the lectine pathway</b>  |
| Tutor                          | Prof.ssa Garlanda  |
| Scientific Area                | 05 – Biological Sciences   |
| Gross amount of the fellowship | 25.000 Euro  |
| Duration of the fellowship     | 24 months  |
| Objectives of the research     | After the identification of the role of complement activation through the lectin pathway in promoting sarcoma growth and immunosuppression (Nature Cancer 2021: 218), we now aim at dissecting the relevance of this pathway in other cancer types and the molecular mechanisms underlying its activation, using preclinical models and human transcriptomic and proteomic data, as well as assays of complement deposition on cancer cells. Specifically, the candidate will contribute to the project by investigating: a) the involvement of the lectin pathway in mouse models of cancer and metastasis using gene targeted mice for Mannose Binding Lectin, C3, or C4, and C3 downstream molecules such as C3aR and C5aR; b) the molecular abnormalities of cancer cells leading to lectin pathway activation and complement deposition using in vitro approaches; c) the relevance of this pathway through pharmacological targeting; d) its relevance in human cancer through bioinformatic approaches and validation assays. |
| Activities to be carried out   | The candidate:<br><ul style="list-style-type: none"><li>- will develop cancer models in mice deficient of specific complement molecules,</li></ul>   |

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|                        | <ul style="list-style-type: none"> <li>- will analyse cancer-related inflammation and immune responses,</li> <li>- will perform FACS analysis of the immune infiltrate,</li> <li>- will perform mRNA expression analysis (RNAseq, single cell RNAseq) taking advantage of institutional facilities.</li> <li>- She/he will cooperate with a bioinformatician for RNAseq analysis.</li> </ul>  |
| Work place             | PIEVE EMANUELE - Milan  |
| Mandatory requirements | In order to be considered for the post candidates must hold PhD in Immunology or Medical Oncology.  |
| Selection process      | <p>Application for admissions must be submitted at the following link:</p> <p style="text-align: center;"><a href="https://pica.cineca.it/humanitas">https://pica.cineca.it/humanitas</a></p> <p>No hard copy of the application must be sent by post.</p> <p>At first access, applicants need to register by clicking on “Register” and completing the requested data.</p> <p>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.</p> <p>Applicants must enter all data necessary to produce the application and attach the required documents in PDF format.</p> |
| Selection criteria     | <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"> <li>- technical skills,</li> <li>- work experience,</li> <li>- theoretical knowledge,</li> <li>- fluent scientific English (written and spoken) is required.</li> </ul>   |



**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. 091/2022** (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to [ufficiodocenti@hunimed.eu](mailto:ufficiodocenti@hunimed.eu) or telephone +39 02.8224.5642/5421.