



Courtesy translation of D.R. n. 125/2021

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

*D.R. n. 125/2021 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>TFields in mesothelioma: mechanisms and novel rational drug combinations</b>   |
| Tutor                          | Prof. Maurizio D'INCALCI  |
| Scientific Area                | 06 – Biological Sciences  |
| Gross amount of the fellowship | 25.000 Euro   |
| Duration of the fellowship     | 24 months   |
| Objectives of the research     | New devices based on low intensity and intermediate frequency electric fields (Tumor Treating Fields - TFields) have shown clinical activity in combination with standard chemotherapy in several solid tumors, including mesothelioma (MPM). However, the molecular mechanisms which elicit these effects have not been fully elucidated. We have recently found that the growth inhibition caused by TFields varies considerably among human MPM cell lines derived from pleural effusions of different patients. The availability of well characterized MPM cell lines growing both in vitro and in vivo with different degrees of sensitivity to TFields renders the performance of comparative studies possible to identify those mechanisms that are crucial for the antitumor activity. Mechanistic insights will help identify synergistic combinations of TFields with specific chemotherapeutics. |
| Activities to be carried out   | <ol style="list-style-type: none"><li>1- In vitro antiproliferative studies and analysis by mathematical models of combined treatments with TFields and anticancer drugs.</li><li>2- Biochemical and molecular analyses focused on the comprehension of the interaction between mesothelioma cells and between TFields and anticancer drugs</li></ol>   |
| Work place                     | PIEVE EMANUELE - Milan  |

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|------------------------|--|
| Mandatory requirements | <ol style="list-style-type: none"> <li>1- Master Degree in molecular and cellular biology or related fields or an equivalent university qualification awarded by a foreign university.</li> <li>2- PhD in biophysical sciences or related fields.</li> <li>3- Scientific experiences suitable for the research activity planned in the present announcement.</li> </ol>  |
| Selection process      | <p>Application for admissions must be submitted at the following link:<br/> <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> <ol style="list-style-type: none"> <li>1- Good knowledge of molecular and biochemical techniques (PCR, protein extraction and purification, Western blotting);</li> <li>2- Good knowledge of cellular biology techniques (cell line and primary culture maintenance);</li> <li>3- Good knowledge of microscopy (confocal analysis, time-lapse microscopy and immunofluorescence techniques);</li> <li>4- Fluent English.</li> </ol> |

**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. 125/2021** (<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.