



Courtesy translation of D.R. n. 060/2022

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

D.R. n. 060/2022 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	Role of surface topography on immune cell behavior and biofilm formation
Tutor	Prof. Roberto RUSCONI, dr. Valeriano VINCI
Scientific Area	05 – Biological Sciences
Gross amount of the fellowship	24.390,24 Euro
Duration of the fellowship	24 months
Objectives of the research	'Breast cancer is the most common malignancy in women worldwide, as reported by the World Health Organization. Post-mastectomy breast reconstruction using breast implants represents the 80% of cases in comparison with autologous reconstruction. Furthermore, a widespread use of breast implants is documented in cosmetic surgical procedures. Nevertheless, despite the extremely common use of these medical devices, there is a very limited amount of knowledge regarding safety concerns associated with breast implants. In the past few years, a correlation between breast implants with textured surfaces and the onset of a non-Hodgkin lymphoma known as Anaplastic Large Cell Lymphoma (ALCL) has emerged. The goal of this project is to investigate the mechanisms underlying this phenomenon by developing a microfluidic model that simulates the interplay between the implant microenvironment – characterized by the microbial population and the host immune system – and the prosthesis surface texture.
Activities to be carried out	The candidate will have to develop and use an experimental model based on microfluidics and microfabrication to evaluate the impact of surfaces with different roughness

	and topography on the behavior of immune cells and bacteria.
Work place	PIEVE EMANUELE - Milan
Mandatory requirements	In order to be considered for the post candidates must hold a MSc in Chemistry, Physics, Biological Science or related disciplines; PhD or an equivalent university qualification awarded by a foreign university (usually referred as a Master's Degree); scientific and professional CV suitable to the carrying out of the research activities outlines above
Selection process	<p>Application for admissions must be submitted at the following link:</p> <p style="text-align: center;">https://pica.cineca.it/humanitas</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"> - Experience in the field of microfluidics or microfabrication, preferably with application in the biomedical or biophysical field; - proven knowledge of written and spoken English.

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. 060/2022** (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.