



Courtesy translation of D.R. n. 066/2023

For more details on the selection process, please refer to the Italian version of D.R. n. 066/2023 available at <http://www.hunimed.eu/it/lavora-con-noi/>

SELECTION PROCEDURE FOR RESEARCH FELLOWSHIP

Research Program Title	Development of a Novel Multiomic Approach for Early Prediction of Preeclampsia
Tutor	Dr.ssa Silvia GIUGLIANO
Scientific Area	06 – Medical Sciences
Gross amount of the fellowship	28.000 Euro
Duration of the fellowship	24 months
Objectives of the research	<p>Preeclampsia (PE) is a syndrome that complicates 4-14% of pregnancies and is the main cause of maternal-fetal morbidity and mortality. PE is diagnosed as new onset hypertension after 20 weeks of gestation and is associated with a spectrum of maternal and fetal complications and with long-term cardiovascular and metabolic disorders for the mother and the newborns. Scientific evidence suggests the existence of two main PE phenotypes, one related to a shallow trophoblastic invasion of the endometrium (early onset), and one associated with late placental oxidative stress and maternal dysmetabolic condition (late onset). This latter phenotype pregnancy represents the most common form of PE, which can occur in up to 14% of pregnancies in obese women. Up to date, there is still a debate on the classification of the different clinical phenotypes of this syndrome, making a personalized therapeutic approach difficult. Artificial intelligence will be used to analyze early predictive multiomic biomarkers that will enable precision medicine, allow for personalized prevention and early treatment and reduce odds of maternal and neonatal health-complications.</p>

<p>Activities to be carried out</p>	<ol style="list-style-type: none"> 1. Coordination of the clinical trial in collaboration with the Mangiagalli Clinic (Recruiting Center). 2. Responsibility in processing saliva, fecal, and blood samples. Saliva and fecal samples will be processed for metagenomic (bacterial DNA extraction) and metabolomic analysis. 3. Collection of plasma for immunological and metabolomic analysis. 4. Characterization of PBMCs by flowcytometry.
<p>Work place</p>	<p>PIEVE EMANUELE - Milan</p>
<p>Mandatory requirements</p>	<ul style="list-style-type: none"> - Master degree in Biological Sciences, Medical, industrial, veterinary or pharmaceutical biotechnologies; - PhD in Immunology would be considered a plus - Professional CV suitable to the carrying out of the research activities outlined above
<p>Selection process</p>	<p>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.</p>
<p>Selection criteria</p>	<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">- Previous experience in bacterial DNA handling and extraction as well as immune cell processing and analysis will be preferred.- Advanced knowledge of written and spoken English.
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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. 066/2023** (<http://www.hunimed.eu/it/lavora-con-noi/>) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.