

Courtesy translation of D.R. n. 038/2024

For more details on the selection process, please refer to the Italian version of D.R. n. 038/2024 available at http://www.hunimed.eu/it/lavora-con-noi/

SELECTION PROCEDURE FOR RESEARCH FELLOWSHIP

Research Program Title	Strategies to Contain Drug-Resistance Emergence in Hospital Settings
Tutor	Prof.ssa Valeria CENTO
Scientific Area	06 – Medical Sciences
Gross amount of the fellowship	21.000 Euro
Duration of the fellowship	12 months
Objectives of the research	This project will address an unmet diagnostic need, represented by the lack of an accurate genotypic characterization to be used as a clinical parameter to guide the optimization of antimicrobial treatment. The use of advanced microbiological diagnosis methods, including next-generation sequencing (NGS), is already implemented in various fields of human biology, but is not yet widespread in clinical microbiology nor implemented in routine standard diagnostic algorithms. However, the level and quality of information provided by this technique would allow for a much deeper understanding of the phylogeny, spread and pathogenesis of drug-resistant microorganisms, provided adequate data analysis and interpretation. The results of this project will allow to evaluate the implementation of NGS protocols in clinical practice, in order to provide support in the choice of a "tailored" therapeutic regimen on both the pathogen and the patient.
Activities to be carried out	 Selection of patients and clinical areas of particular interest in the application of diagnosis protocols via next-generation sequencing (NGS),



	 Contribution to the development of experimental protocols, with particular focus on the interpretation of resistance profiles; Evaluation of the usefulness and clinical applicability of the protocolS; Statistical analysis and management of scientific databases; Presentation of the research results at internal meetings, national and international conferences; Writing of scientific papers.
Work place	PIEVE EMANUELE - Milan
Mandatory requirements	 Medicin and Surgery Degree with residency in Infectious Diseases or Microbiology and Virology Adequate scientific and professional background to carry out the research activity described in this call.
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: • Demonstrable skills and previous work experience in the infectious disease and/or microbiology field;



- Experience in the field of antimicrobial stewardship. Experience in statistical analysis (e.g. in at least one of R, Python, STATA, etc);
- Further requirements will also be considered such as: excellent knowledge of the English language, spoken and written;
- Aptitude for research and ability to manage even complex scientific data;
- Ability to work autonomously, together with a high propensity to interact with other team figures;
- Scientific publications related to the topic of the project.

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. 038/2024** (http://www.hunimed.eu/it/lavora-con-noi/) or send an inquiry to ufficiodocenti@hunimed.eu or telephone +39 02.8224.5642/5421.