

### **4-year Research Group**

Call for nomination at the Hellenic Pasteur Institute

A 4-year Group leaders' position is open at the Hellenic Pasteur Institute **on one (1) of the following topics.**

#### **A. Host- Pathogen Interactions**

Pathogens' direct or indirect interaction with the host cell and its effect thereafter is a continuously emerging field. Pathogens manipulate mechanisms at the molecular, biochemical, and biophysical level, evoking a cellular response that facilitates pathogens' survival and propagation. Studying these mechanisms not only provides insight into cellular mechanisms but also in the process providing novel targets for drugs and diagnostics. Pathogens' evolving complexity helps to develop resistance against drugs by developing newer pathways, necessitating research for newer drug targets. Pathogens can also modulate host cellular functions and induce an uncontrolled proliferation of cells leading to cancer.

Indicative potential topics may include but are not limited to the following:

- Host response to infection and co-infection;
- Cellular effects on the host in response to toxins or other metabolites secreted by the pathogen;
- Mechanisms of intracellular survival;
- Molecular and biochemical response during host-pathogen interaction;
- Regulation of cellular proliferation;
- Advances and challenges in drug design, immune responses and vaccine development, and therapeutics;
- Advances and challenges in designing and developing diagnostics and sensors.

#### **B. Antimicrobial drug resistance**

Antimicrobial resistance within populations of different infectious agents is a worldwide public health threat. Already the available treatment options for common infections in some settings are becoming ineffective. There are now reports of bacterial resistance to all antibiotic classes used in either human or veterinary medicine, and in several cases, of an association between antibiotic use and the development of clinical resistance. To counter this emergent problem, the World Health Organization has appealed for urgent and concerted action by governments, health professionals, industry, civil society and patients to slow down the spread of drug resistance, limit its impact today and preserve medical advances for future generations in different ecosystems.

Indicative topics may include but are not limited to the following:

- Epidemiology of resistance in animal and zoonotic pathogens
- Mobile elements containing resistance genes

- The omics of antimicrobial resistance
- Emerging antimicrobial resistance mechanisms
- Control of resistant infections
- Biofilms
- Modelling of AMR transmission
- Analysis of the underlying mechanisms

The International Call 2023 for applications for a 4-year Research Group will support one (1) new G4 award holder with a group-leader career development opportunity of up to 400,000€. The successful applicant should propose an innovative research project on one of the above topics

### **CONTEXT OF THE HOST INSTITUTION :**

The Hellenic Pasteur Institute (HPI), the first biomedical research institute originally devoted to public health research, was founded in 1920. Almost a hundred years later, the HPI is a private, non-profit research organization supervised by the Ministry of Development and Investments and the Ministry of Health. The Institute functions in agreement with the Greek law for Research Centers and a Bilateral Agreement (4528/2018) between the Greek Government and the Institute Pasteur in Paris (IP Paris).

HPI has been granted funding from the Recovery and Resilience Facility Agency – Greece 2.0, to create state-of-the-art BSL3 and BSL2 tissue culture and animal laboratories with robotic equipment for culturing and studying emerging and reemerging dangerous pathogens, thereby upgrading the institute’s capacity for top notch research in infectious diseases immensely.

HPI has also achieved major funding from the Regional Government of Athens and the HFRI for the purchase of highly specialized equipment that will immediately upgrade its technological platforms and increase their capability to address high throughput questions as related to genome analysis and imaging

HPI is a member of the Pasteur Network, with specific missions within the scope of the study and control of infectious diseases.

The G4 award holder will benefit of the HPI’s platforms e.g. Light Microscopy Unit, FACS Analysis Unit, Department of Animal Models for Biomedical Research and Transgenic Technology.

The G4 leader will have the possibility to interact with experienced researchers of the HPI. Cooperation with other scientific partners in Greece will be encouraged.

### **WHO CAN APPLY FOR A G4 PI POSITION?**

The G4 applicant should ideally be an early to mid-career post-doctoral scientist, wishing to establish a research group as an independent researcher at the HPI. The G4 team, as employees of the HPI, must adhere to its rules and regulations.

An enabling environment should motivate the G4 award holder to pursue his/her career at the HPI with the prospect of obtaining a permanent position at the end of the award tenure.

As the HPI is member of the Pasteur Network, it is expected that the G4 PI will express a willingness to participate in the development of this network by strengthening research through collaboration and training across the Pasteur Network.

As for any research group, the G4 award holder will be encouraged to develop and strengthen his/her capacity to manage a team and to welcome and supervise Masters and PhD students, as well as interns. A G4 PI can also hire postdoctoral researchers. During his G4 leader years the successful candidate will have to apply to international grants to secure the financial sustainability of his research group.

Finally, the involvement of the G4 PI in teaching activities will be highly appreciated.

The HPI should support the G4 PI to become an independent researcher and a future scientific leader in his field. Mentorship for the candidate will be put in place and a training on management will be offered (by the host institution). It is expected that successful candidates will be offered a **permanent position** at the end of the G4.

## **THE PARTNERSHIP WITH INSTITUT PASTEUR**

Institut Pasteur will support the career development of the G4 PI through four (4) annual payments of up to €100,000, payable at the beginning of each financial year. This fellowship can finance salaries up to 50% of its total annual amount.

All scientific and ethical standards and requirements, in accordance with the statutes of the HPI and Institut Pasteur, need to be respected as stipulated in the agreement relating to the G4. This agreement will also define the start date of the G4, which will be agreed with each successful applicant.

The period of tenure of a G4 award is 4 years.

## **ELIGIBILITY AND SELECTION CRITERIA**

### Eligibility

Any scientist holding a PhD in Host-Pathogen Interactions or Antimicrobial Resistance, or related field and having 5 to 8 years of post-doctoral research experience can apply for G4 Award.

The call is open to researchers of any nationality.

The candidate cannot already have a permanent position at the HPI.

To have already financed projects is an asset

### Selection criteria

The candidate will be evaluated against the following criteria:

- Quality of his/her research  
*Did the research projects carried out by the candidate result in measurable outputs or outcomes in public health or in fundamental knowledge on the subject of interest (peer reviewed articles, patents, etc.)?*

- Capacity to finance his/her projects  
*Has the candidate shown real ability in securing grants from national or international funding agencies?*
- Collaborations and any plans to develop strategic local and regional partnerships  
*Has the candidate demonstrated the ability to initiate, maintain, and develop research collaborations?*
- Supervision and training  
*What management and training experiences does the candidate have?*  
*Does the candidate demonstrate their willingness to be involved in the training of local young scientists?*
- Peer recognition  
*Has the candidate's work been recognised by the scientific community through awards, prizes?*  
*Has the candidate been invited to participate in international scientific events?*

The proposed research project will be evaluated not only on its quality, originality, and feasibility but also on the added values it will bring to the host institute and its contribution to the regional/global health priorities. It is expected that the candidate will bring an experience working on host pathogen interactions or antimicrobial resistance. Thus, the right match between the candidate and the host institute will be pivotal, for as well as the motivation of the candidate to participate to the scientific strengthening of the Network.

## **SELECTION PROCESS**

The Executive Board of the HPI, will designate an evaluation committee with the mandate of the pre-selection of candidates.

Candidates must contact and send to the HPI direction ([secr.director@pasteur.gr](mailto:secr.director@pasteur.gr)) a PDF file containing:

- a letter of intention including career objectives,
- CV,
- short description of the research program and,
- three references with contact information.

### **Deadline for pre-selection tour: 15 June 2023**

The pre-selected candidates will be invited to complete an online application. The selection will be made during the panel meeting following a review of each application by at least two (2) scientists from our expert panel and external reviewers and an interview of each candidate. The selection will be confirmed by the executive management of the Pasteur Network. Candidates will be notified in due course.

### **Deadline for online submission: 15th September 2023, 12.00 CET**

## **SUBMISSION REQUIREMENTS – FOR FULL FINAL APPLICATION FORM**

Applications must be written in English and submitted online . Incomplete or paper-based applications will not be considered.

When deemed necessary, the Institut Pasteur reserves the right to ask candidates for additional information in order to evaluate their application.

Candidates must not submit information in their application that is confidential and/or protected by the intellectual property rights of third parties, and may contravene any rights of third parties.

The Pasteur Network is in charge of the G4 selection process.

### **FOLLOW UP PROCESS**

The Department of International Affairs/ Pasteur Network is responsible of the follow-up process of the G4. As part of the evaluation, each year, the G4 PI should provide a complete progress report regarding the scientific activities, including details on annual expenditures. A mid-term interview will be organised with panel members in charge of the follow up.

Each G4 PI will be paired with a suitable mentor, offering advice and guidance for all aspects relating to G4 management and career development. The mentor will be identified from a pool of experienced scientists who already have experience in leading a research group within the Pasteur Network. The G4 PI or the host institute direction can also suggest mentor to the Pasteur Network foundation.