



### **EARLY STAGE RESEARCHER (PhD position)**

*Evaluation of the antimicrobial activity of nanocarriers-antibiotic formulations against multidrug resistant bacteria*

*Funded by the EU Marie Curie Network **Cyclon-Hit***

The Laboratory of Bacteriology of the Hellenic Pasteur Institute invites applicants to submit their candidacy for an Early Stage Researcher Marie Curie Position.

**STARTING DATE:** September 2014

**DURATION:** 12 month research contract, renewable up to 36 months, towards a PhD degree.

**Application deadline:** June 24<sup>th</sup> 2014.

#### **Description**

The aim of the Cyclon-Hit project is to take advantage of nanotechnology for the development of novel strategies to deliver antibiotics in an optimized fashion in order to circumvent the problem of bacterial resistance to antibiotics.

The recruited person will carry out research in the area of conventional and molecular bacteriology, specifically in the field of bacterial antibiotic resistance mechanisms, in the Laboratory of Bacteriology of the Hellenic Pasteur Institute.

He/she will be involved in the phenotypic, biochemical and molecular elucidation of the mechanisms conferring resistance to antibiotics in Gram-negative pathogens. Moreover, he/she will participate in the in vitro and in vivo (animal infection models) assessment of the efficacy of antibiotic-carrying cyclodextrin/nanoparticles, prepared by the Cyclon-Hit partners. Therefore, the recruited person will be engaged in the characterization of clinically important bacterial multidrug resistant Gram-negative strains, enzymology, molecular characterization of resistance mechanisms (strain molecular typing, cloning, characterization of the genes responsible for antibiotic resistance), in vitro activity/time-killing experiments/in vivo efficacy in animal experimental models (murine thigh and sepsis models) of different formulations. As a part of the ITN project, the recruited person will be trained also in other modern complementary techniques available in the Cyclon-Hit network, through planned secondments (three in total, 1-3 months each).

The PhD student will be required to fully follow the training program of Cyclon-Hit, travel to collaborating laboratories, present her/his research in biannual project meetings, conferences, and in regular reports, and attend the Summer schools and workshops organized by the project.

#### **Requirements**

- MSc (Master of Science) degree, between 2010 and 2014 (i.e. less than or equal to 4 years research experience at the time of hiring) in the field of Microbiology or related.

- excellent knowledge of the English language
- applicants must not have resided or carried out his / her main activity (studies, work e.t.c.) in Greece for more than 12 months during the 3 years immediately prior to his / her appointment (recruitment). For more details, see: [http://ec.europa.eu/research/mariecurieactions/index\\_en.htm](http://ec.europa.eu/research/mariecurieactions/index_en.htm).
- applicants must be able to undertake trans-national mobility (move from one country to another).

### **Additional Requirements**

An eligible candidate is expected:

- to have a high interest for interdisciplinary research in microbiology, biological systems, chemistry, and nanotechnology.
- prior experience in animal handling will be appreciated.
- to possess excellent verbal and communicational skills
- to be a highly motivated person, demonstrating the will to advance and progress in the field of Biological Sciences

### HOW TO APPLY

Applicants should send a detailed Curriculum Vitae including: educational background, professional experience, laboratory techniques, participation in publications / conferences / seminars, contact information of at least two referees, and any other additional information that is considered essential for demonstrating knowledge and skills. The CVs, accompanied by all related documents proving the educational status, will be submitted via e-mail to:

Human Resources Office: [prosopiko@pasteur.gr](mailto:prosopiko@pasteur.gr)

Tel.: +30 210 6478857, +30 210 6478858

*Hellenic Pasteur Institute*

A selection Committee, appointed by the Executive Board of the Institute will evaluate the submitted applications and CVs, will form a shortlist of the most eligible candidates and conduct interviews via Skype; therefore, all applicants should be prepared for a possible participation in at least one – via Skype – interview.

Website: [www.pasteur.gr](http://www.pasteur.gr)

### **Number of positions available**

1

### **Research Field**

Biological Sciences / Biology

### **Career Stage**

Early Stage Researcher or 0-4 years

## **Research Profile**

First Stage Researcher

### **Benefits**

- Full employment contract with a most competitive salary.
- Research conduct in a Research Center which is part of an international network of 32 Institutes (*Réseau International des Instituts Pasteur*), united under a common mission.
- Opportunity for multi-disciplinary interaction and collaboration with Institutes / Universities / Laboratories in Europe through the Cyclon Hit project's partners.
- Secondment placements within the network's research and industrial partners.

This action aims to improve career perspectives of early-stage researchers in both public and private sectors, thereby making research careers more attractive to young people. This will be achieved through a trans-national networking mechanism, aimed at structuring the existing high-quality initial research training capacity throughout Member States and associated countries.

Marie Curie ITN project "Cylon Hit" aims to add to the employability of the recruited researchers through exposure to both academia and enterprises, thus extending the traditional academic research training setting and eliminating cultural and other barriers to mobility.

Our network is built on a joint research training program, responding to well identified training needs in defined scientific or technological areas, with appropriate references to interdisciplinary and newly emerging supra-disciplinary fields.