



**National Center for Scientific Research (CNRS)
Institute of Molecular Sciences of Orsay (ISMO)
Université Paris-Sud, Orsay, France**



<http://www.cnrs.fr>
<http://www.ismo.u-psud.fr>
<https://www.universite-paris-saclay.fr/en>

EXPERIENCED RESEARCHER (Post doctoral position)

Engineered nanoparticles to fight severe infections

Funded by the EU Marie Curie Network CycloN-Hit project # 608407 (FP7-PEOPLE-2013)

<http://itn-cyclonhit.eu>

STARTING DATE: to be defined, January 1st to March 1st 2017
DURATION: 12 months
APPLICATION DEADLINE: November 1st, 2016

BENEFITS: The successful candidate will enjoy a full employment contract with a very competitive salary (approx. 60 000€/year). She/he will work in the University Paris-Sud (<http://www.u-psud.fr/en/index.html>) the largest Research Center in the Paris region.

The candidate will perform research in a multidisciplinary environment and participate in events organized by the **CycloN-Hit** consortium (biannual group meetings, summer schools and workshops). She/he will benefit from collaboration opportunities with outstanding institutions and companies in Europe and in the US.

REQUIREMENTS: PhD (doctorate) degree obtained in 2015 - 2016 (or corresponding to ≤5 years research experience from MSc degree, at the time of hiring) in Nanotechnology, Pharmaceutical Sciences, Chemistry, or related fields. Applicants should be preferably European Citizens (from EU Member States or Associated Countries), but candidates from Third Countries are eligible also. The applicants must not have resided or carried out their main activity (work, studies, etc) in France for more than 12 months in the 3 years immediately prior to recruitment. For more details concerning recruitment rules, please see: http://ec.europa.eu/research/mariecurieactions/index_en.htm.

The ideal candidate will be a highly motivated person with a passion for research and a strong interdisciplinary background. She/he must demonstrate deep understanding, competence and success in previous research, as well as evidence of independent intellectual contribution to research projects. She/he should be able to communicate well in English (written and oral) both to scientific and non-scientific audiences.

DESCRIPTION OF WORK: The recruited Marie Curie fellow will carry out research in the field of nanomedicine. In collaboration with chemists, engineered nanoparticles able to co-encapsulate synergic combinations of antibiotics will be prepared.

The drug-loaded nanoparticles will be comprehensively characterized by modern techniques available at Paris-Sud University, involving microscopic investigations, as well as size distribution, concentration, surface charge/composition and stability studies. Release of drugs will be studied in various media, mainly by HPLC. Finally, in collaboration with microbiologists, the interaction of the drug-loaded nanoparticles with bacteria and infected cells will be studied. The surface of the nanoparticles will be modified to enhance their interaction with cells. Optimized formulations will be considered for *in vivo* evaluation at Pasteur Institute.

In a nutshell, the recruited fellow will be engaged in a multidisciplinary approach involving numerous collaborations. The candidate should be able to:

- Define and adapt scientific protocols and experimental techniques to the research topic
- Undertake comprehensive literature reviews and publish the results in peer-reviewed high level journals in the field
- Present the research work in regular reports, biannual project meetings of **CycloN-Hit** and international conferences
- Fully follow the training program of **CycloN-Hit** (summer schools, workshops, e-classes, etc)
- Travel to collaborating laboratories for a short secondment for the benefit of the project
- Carry out collaborative projects with colleagues in **CycloN-Hit** and other laboratories
- Help sharing responsibilities to keep the laboratory running efficiently.

HOW TO APPLY: Sent by email, before November 1st, 2016, to :

D. Ruxandra GREF ruxandra.gref@u-psud.fr

Ms. Valeria MARTIN valeria.martin@u-psud.fr

- 1) a detailed CV, illustrating the candidate's educational background, the list of publications, contributions to conferences, seminars and any other information that is believed appropriate to demonstrate the required skills;
- 2) at least one recommendation letter and contact information of two referees
- 3) a motivation letter for the proposed topic.
- 4) please indicate in the email by which means did you find about this job opening

The applicants should be prepared to participate in an interview *via* Skype.

Please feel free to share this job opening with your interested contacts.