



## CALL FOR APPLICATIONS

### One postdoctoral position

Postdoctoral position at Atomic Force @ LAI. French National Health Institute INSERM, Aix-Marseille Université, Marseille

One postdoctoral position is available in molecular biology studies by Atomic Force Microscopy and High Speed Atomic Force Microscopy. The position is for **2 years**, starting date upon agreement.

#### Job description

The postdoc project involves the use of high-speed atomic force microscopy to investigate at nanometer lateral scale and sub-second temporal resolution the biological membrane organization. The project will **focus on energy transfer at the biological membrane** (1) and will be performed in direct collaboration with the Laboratoire d'Ingénierie des Systèmes Macromoléculaires (LISM) UMR7255.

#### Scientific environment

Force Microscopy @ LAI, INSERM U1067 CNRS UMR 7333, offers an ambitious scientific environment, with many different nationalities represented. The research center is located at the Campus of Aix-Marseille Université AMU of Marseille supported by the French National Health Institute INSERM and AMU. Our aims are the (i) discovery of the dynamics, diffusion, structure, interactions and supramolecular assembly of biological membrane constituents (2-6) and (ii) adhesion and mechanics of biomolecules and cells, using force spectroscopy methods with conventional and high-speed AFM. More info on <https://sites.google.com/view/fm4b-lab/home>, <https://labadhesioninflammation.org>.

1. Scheuring et al. *Biochimica et Biophysica Acta (BBA) - Bioenergetics*. 2014;1837(8):1263-70 / 2. Colom A et al. *Nature Communications*. 2013;4 / Casuso I et al. *Nature Nanotechnology*. 2012;7(8):525-9 / Munguira I et al. *Acs Nano*. 2016;10(2):2584-90 / 5. *Science*. 2013;342(6159):741-3 / Rigato A et al. *Nature Physics* 2017; 13 (771):5846-56.

#### Qualifications

Highly motivated and ambitious candidates are encouraged to apply. It is required:

- A PhD degree in biology, chemistry, pharmaceuticals or physics
- Relevant scientific experience supported by publication record
- Proven ability to present and publish research data
- Excellent English communication skills, both oral and written

In all cases, the ability to perform the job will be the primary consideration, and thus we encourage everyone interested in this post to apply, regardless of personal background.

## **Terms of salary and employment:**

The terms of employment are set according to the prefixed table of wages. Successful applicants will receive a salary around 2800 euros gross salary per month.

## **Application procedure**

The application must be submitted in English to [ignacio.casuso@inserm.fr](mailto:ignacio.casuso@inserm.fr), and must include the following:

- \*Curriculum vitae with a list of publications, a report on previous research undertaken, and the names, addresses and contact details of 2 referees
- \*Diplomas – all relevant certificates, including grades
- \*An outline of how you could contribute scientifically and intellectually to the research of the center (approximately 1 A4 page)

**Deadline for application is July 15th, 2018.**

**After the expiry of the deadline for applications,** all applicants are then notified whether their application has been selected for further assessment and interview either by personal visit or video chat.

*The French Institute of Health and Medical Research (INSERM) (<http://english.inserm.fr/>) was founded in 1964, and is a public scientific and technological institute with more than 5000 permanent employees and 2000+ permanent researchers. INSERM hosts large numbers of international researchers and having strong links with European industry. Also, it pursues an active international program that stimulates collaborations and hosting of international researchers ([www.inserm.fr/qu-est-ce-que-l-inserm/politique-internationale](http://www.inserm.fr/qu-est-ce-que-l-inserm/politique-internationale)). INSERM provides training in all scientific disciplines, and the labs have even the possibility to ask the national directory to establish training classes when novel needs for learning novel technologies, programming languages etc.*

*Aix-Marseille University with his 117 research units and 130 research facilities provides a major contribution to the knowledge economy and the dissemination of knowledge in collaboration with the major French research institutions. It has more than 4000 professors and researchers, and 3000+ PhD students.*

*The host lab has four different AFM setups (ranging from high-speed AFM prototypes to cellular AFMs coupled to optical microscopes) and all the basic biochemical and cell culture equipment provides an excellent platform to develop the project.*