

Post-doc/Engineer in prototyping/experimental development specialized in micro/milli-fluidics

Duration: 17-20 months

Location: Interdisciplinary Center of Nanoscience of Marseille, CINaM, Aix Marseille University

Mission

The candidate will be in charge of the prototyping of a micro/milli-fluidic measurement system allowing to trace a marker of the deformability of red blood cells for the development of a medical measurement device.

Activities

- To carry out a specification
- Study and propose the different technological options
- Discuss with suppliers and subcontractors
- Design and develop the mechanical, optical and fluidic system
- Plan the automation of the control system and the data acquisition
- Identify the qualification criteria of the experimental device, carry out tests and calibrations

Skills

Knowledge

- Engineering techniques and sciences related to the field: micro/millifluidic devices, micro-flow, optical microscopy in a liquid environment adapted to biological systems, image and video acquisition techniques using optical microscopy, pressure, temperature and velocity measurements.
- Prototyping / industrial developments
- Knowledge of biology at the cell level would be appreciated
- English language B1 to B2 (Common European Framework of Reference for Languages).

Operational skills

- Mastery of software specific to the field (MATLAB), office automation, image analysis software (ImageJ...)
- Know how to program in common languages, especially Python and Matlab would be appreciated
- Write experiment reports, protocols, technical documents, and workbooks
- Demonstrate meticulousness and dexterity: activity requiring manual and very precise work
- Rigor and organization
- Have a spirit of initiative
- Ability to communicate orally and in writing to different audiences: computer scientists, physicists, doctors, hospital staff
- Lead a meeting

Desired diploma: Doctorate

Salary: 2466€-2891€/Month Gross depending on experience

Context

This recruitment is part of a start-up project supported by the IDEX of Aix Marseille University. The work will be carried out in the CINaM premises.

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