

# POST-DOCTORANT "Making magnetic microbeads with microfluidics" - CDD de 12 mois

<https://www.espci.psl.eu/fr/espci-paris-psl/emploi/archives/2016/post-doctorant-making-magnetic-microbeads-with>

## Laboratoire d'accueil/Laboratory description :

The Laboratory Colloïdes et Matériaux Divisés (LCMD) from ESPCI Paris, directed by Jérôme Bibette, invents and innovates at the intersections of disciplines between chemistry, physics and biology. It creates novel approaches and new materials for biology, revisits and upgrades old processes of material manufacturing and is fascinated as much by the research and development that emanate from its spin off. This job offer concerns the recruitment of a postdoc under the supervision of Nicolas Bremond.

## Thématique de recherche :

Making magnetic microbeads with microfluidics

## Sujet du postdoc/Project description :

Magnetic microbeads having a functionalised surface find applications in biotechnology, such as DNA sequencing, biomarker detection in biological medium or separation of cells, pathogenic microorganisms, proteins, ... The possibility to create calibrated object with the desired magnetic content and surface properties would increase the efficiency and reproducibility of such microbeads. The objective of the project concerns the capability to make magnetic particles synthesis on the micrometer range while being compatible with emulsification in microsystems. This implies to ensure the stability of the magnetic nanoparticles dispersed in a polymer solution as well as a control over time of the solid-liquid surface properties of microfluidic chips. The project is a collaboration between LCMD and a major international Life Science company.

## Compétences requises/Candidate profile :

We are therefore seeking a highly motivated post-doc to validate the use of microfluidics for creating calibrated magnetic microbeads in a large amount. The candidate should possess a PhD, or should have a strong background, in material science, especially involving polymers and emulsions, and be interested to learn to use microfluidics systems and adapt formulation to the project needs. Flexibility, autonomy, the ability to work in a highly multidisciplinary team and good interpersonal skills are essential.

## Durée/Duration of the project :

The duration of the project is 12 months. For more information : <https://www.lcmd.espci.fr/uk>

For more information : <https://www.lcmd.espci.fr/uk> Candidatures (lettre de motivation et CV) à transmettre par courrier électronique à : [nicolas.bremond@espci.fr](mailto:nicolas.bremond@espci.fr)

## Accès

Métro ligne 7 (Place Monge/Censier Daubenton) RER B (Luxembourg) Bus 21, 27 & 47 3 stations Vélib proches