ESPCI PARIS

PostDoctoral Position RNA-seq of cells and tissues encapsulated in hydrogel capsules CDD de 5 mois

https://wwwdev.espci.fr/fr/espci-paris-psl/emploi/2016/postdoctoral-position-rna-seq-of-cells-and-tissues

Laboratoire d'accueil :

Laboratoire de Biochimie (UMR 8231) The Laboratory of Biochemistry (LBC) at ESPCI ParisTech (25 pers.), directed by Prof. Andrew GRIFFITHS, seeks to recruit a post-doc for an 18-month period with a start date between October and December 2014. The successful candidate will join a highly multidisplinary team, with experience spanning biology, chemistry and physics.

Sujet du postdoc :

The projects of the LBC are all based around droplet-based microfluidics, a powerful new ultrahigh-throughput system in which reaction volumes can be minaturized by up to a million-fold compared to conventional assays in microtitre plates (more details on the different projects can be found on www.lbc.espci.fr). Current developments include the combination of molecular biology, Next Generation Sequencing and droplet microfluidics to perform ultra high-throughput single cell sequencing and especially high-throughput single cell RNA-seq. We now plan to extend this multiplexed RNA-seq approach to cells and tissues compartmentalized in hydrogel capsules, in collaboration with our partner the Laboratory of Colloids and Divided Materials (LCMD) of ESPCI (www.lcmd.espci.fr), directed by Jérôme Bibette. The LCMD developed a process for making liquid core hydrogel capsules with a wide range of applications from cosmetic formulations to cell biology and microbiology. We are looking for an enthusiastic candidate with training in molecular biology (PCR, RT, Next Generation Sequencing) to design and validate the reagents and protocols to generate barcoded sequencing libraries from the encapsulated tissues. The project will be conducted together with a post-doc working at LCMD on tissue reconstruction in capsules and will be applied to the field of toxicology. The key personal characteristics that we are looking for are flexibility, ability to work in a highly multidisciplinary team and good interpersonal skills. Previous expertise in an interdisciplinary context is a plus.

Compétences requises :

Candidates should hold a PhD in Molecular Biology. High proficiency in in primer design/validation, transcriptomics and Next Generation Sequencing (ideally Illumina technology) is mandatory. Skills in cell culture and/or microfluidics is a plus. The candidate should have a strong interest in innovative concepts and working interdisciplinary.

Durée :

CDD de 5 mois

Contact

Nom : Andrew GRIFFITHS Directeur du laboratoire de biochimie Mail : job-lbc@espci.fr Candidatures (lettre de motivation et CV) à transmettre par courrier électronique.

Accès

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