

Postdoctoral researcher position



Biomechanics of platelet formation

Location: BMBI, Université de Technologie de Compiègne-CNRS, France

Contract Type: full time, fixed term (one year initially, can be renewed for up to a total of two years)

Starting date: December 2016

Context: Platelets are small anucleated cells involved in wound healing. They originate from megakaryocytes (MK), located in the bone marrow, that at the end of their maturation extend long processes into the bone marrow vessels. The breakup of these fragments yield blood platelets. Hydrodynamic forces have been shown to play a significant role in platelet formation.

Funded by Région Picardie, the FORPLAQ project aims at investigating the biomechanics of platelet formation. Using microfluidic devices we can submit MK to various flow conditions and observe how they engage towards platelet release. We also seek to develop biomechanical markers of MK maturation.

Mission: The post-doctoral researcher will contribute to the design of microchannels, the characterization of flow conditions. He/she will develop experimental protocols to probe MK behavior under flow, in close collaboration with other teams involved in the project (INSERM US1140 and ESPCI-Gulliver). The successful candidate will be expected to contribute to the publication of scientific papers, and to their dissemination at relevant workshops and conferences.

Profile: The adequate candidate should have obtained a PhD in biophysics, microfluidics or cell biology. He/she should have experience of experimental tools to investigate cell mechanics. Candidates should be willing to work in a highly interdisciplinary environment.

Laboratory: The project will take place in UTC, Compiègne, France. The laboratory of BioMechanics and Bioengineering is dedicated to the study of living systems at all scales, from the individual to the molecule.

Contact: Questions and/or applications may be addressed to Anne Le Goff (anne.le-goff@utc.fr), principal investigator of the FORPLAQ project.

Reference:

Blin A, Le Goff A, et al. Microfluidic model of the platelet-generating organ: beyond bone marrow biomimetics. *Scientific reports*. 2016;6:21700.