



Project – “Study of platelets-collagen interactions with QCM based microfluidic sensor approach”

Project Description

The candidate will be involved in the project dedicated to the development of microfluidic sensor solutions for the assessment of primary haemostasis. The candidate’s work will be specifically focused on the characterization of the collagen modified sensor surface and on experimental study of platelets-collagen interactions with Surface plasmon resonance imaging (SPRi) sensor. The objective is to better understand and characterize, thanks to SPRi, the surface events appearing at the level of collagen and platelets on a QCM sensor. On the basis of obtained results, the successful candidate will have an opportunity to complete the master diploma work under supervision of the responsible project leaders.

Particular tasks:

- Processing of the collagen based bio-interfaces
- Characterization of the collagen based bio-interfaces (surface coverage and density, kinetics of grafting, ...) with SPRi
- Experimental investigation of platelet-collagen interaction with SPRi : kinetics of interaction, effect of shear forces
- Study of bio-interfaces with optical microscopy and AFM

Profile and requirements:

- Master student or engineering school students in a field of biology, biointerfaces, electrical engineering or similar fields.
- Hands-on mentality and experience in a lab work
- Well organized with an ability to keep protocols of experiments and summarize the obtained data

Key words:

Microfluidic sensor, biosensor, SPR

We offer

- Participation in a challenging research project with real application of the results



- Well-equipped laboratories
- An international scientific environment
- Ability to complete the project under supervision of field experts

Terms and conditions

Start date: as soon as possible

Duration: 6 months

Location: FEMTO-ST, 15B Avenue des Montboucons, 25030 Besançon Cedex

Remuneration: 550 EUR / month

Contacts

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