

# POINT-OF-CARE MICROFLUIDIC MEDICAL DEVICE FOR MONITORING PLATELET REACTIVITY AND AGGREGATION





## **MARKET CHALLENGES**

Platelets are the main players of blood aggregation and subsequent coagulation. In a pathological situation such as atherosclerosis, platelets can be responsible for the thrombotic complications following the rupture of a plaque: uncontrolled formation of thrombi can then lead to heart attack and stroke.

Currently, patients with coronary complications are treated with anti-platelet therapies to avoid formation of thrombi, but they can become resistant to treatment, or at risk of hemorrhages. As of today, there is no quick way to monitor platelet reactivity at bed side to insure the best dosing of anti-platelet therapy or to follow up on the efficacy of the treatment.



## **INNOVATIVE SOLUTIONS**

A microfluidic medical device that allows the rapid measurement of platelet reactivity, at bed side (point-of-care device), on a small amount of untreated blood. The device provides information about the efficacy of an anti-platelet therapy, allows to discriminate mono- to bi-therapies and to detect a risk of hemorrhage.



#### **SUGGESTED APPLICATIONS**

Discrimination between anti-platelet mono- and bi-therapy, and/or detection of hemorrhage risk in cardiology and cardiac surgery hospital department, doctor's office.



## **DEVELOPMENT STATUS**

The device is functional but needs miniaturization. SATT Lutech can fund the elaboration of an optimized and miniaturized device, in the shape and size of a suitcase, should a financial partnering with a private healthcare/medtech company be put in place.





# **COMPETITIVE ADVANTAGES**

- Point-of-care device, can be used at bedside
- Can be used directly in practice nurse's or doctor's office without the need of a lab technician
- Can be used on small amount of untreated blood





