

TIXIER-MITA LAB.

Multi-modal Bio-sensing Micro-device



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Bio-sensing platform for neurocardiac system investigation

Every year, cardiac diseases cause millions of deaths worldwide. These diseases involve complex mechanisms between heart and other organs systems, like nervous system, that are difficult to study in-vivo. To remedy this problem, we propose to develop an in-vitro neurocardiac platform capable of sensing the various chemical and electrical signals involved, and of reproducing the mechanisms involved in the control of heartbeat. This research is based on the integration of multiple sensors on the platform, and on the implementation of biohybrid systems for precise control.

