

CASE STUDY

Rapid tissue analysis test for cancer

Problem - Challenge

Until nowadays, immunohistochemistry (IHC) test results from tumor samples were available in no less than several hours, due to long incubation times for tissue staining with labeled antibodies and for its analysis under the microscope, in order to assess presence and location of tumor-specific biomarkers. In the clinical setting, reducing the timing for answers may open the door to intraoperative testing, improving surgeons' informed decision-making and reducing the number of reoperations. In the research field, the rapid tests can greatly improve cancer research workflows and ultimately the obtention of findings.

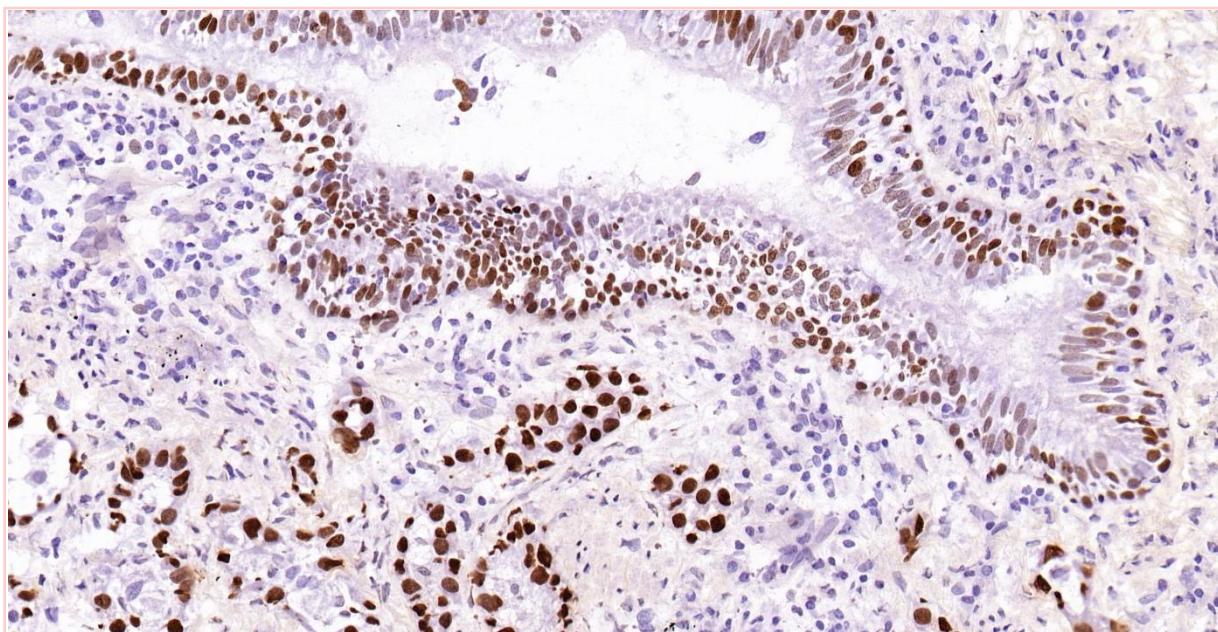
Solution

The microfluidic system designed through doctoral research at the laboratory headed by Professor Martin Gijs at EPFL aims for the use by research labs, pharmaceutical and clinical research companies and hospitals.

Minutes rather than hours: the technology further developed by Lunaphore Technologies SA achieves high-precision staining, while dramatically reducing the time required for reagents to incubate. The results are obtained just 10 to 30 minutes later.

The instrument which automates this rapid test is being released on the market in 2019 and is the first product that the company has marketed since its founding in 2014. The system holds the European Union's CE marking and will be available in most European countries.

Lunaphore, which is based at the EPFL Innovation Park, has raised 13.3 million francs so far – 5.3 million of which in August 2018. The company has been awarded a number of Swiss and international awards, including the Swiss Technology Award and #2 in the TOP100 Swiss Startup Award as well as 2 Eurostars grants.



Frozen section of TTF1 in non-small cell lung carcinoma, staining time 14'

EPFL



Lunaphore
technologies