

PRESS RELEASE

Rapid multiplexing with Opal[®] research kits now available on LabSat[™] platform

LAUSANNE, Switzerland - May 23, 2019 - 12:30 am - Lunaphore Technologies S.A., a Swiss medtech firm developing innovative next-generation equipment for cancer research and tissue diagnostics, announces a new rapid multiplexing application for its LabSat[™] Research instrument.

Following the signature of a co-marketing agreement between Lunaphore Technologies S.A. and Akoya Biosciences, Inc.; Lunaphore will start providing multiplexing protocols using Akoya's Opal[®] immunoassay kits for its staining platform LabSat[™] Research, Lunaphore's first solution to reach the market.

LabSat[™] is shown to perform rapid tests on tissue samples under 2.5 hours for a 3-plex plus counterstaining with the Opal[®] 4-Color Manual IHC Kit; and under 4.5 hours for a 6-plex plus counterstaining with the Opal[®] 7-Color Manual IHC Kit¹. These timeframes present a 3 to 4-fold time improvement compared to the current turnaround times for Opal[®] 7-Color kit using manual protocols or other automation standards. During the study conducted by both companies, comparable intensity to other staining methods was observed, while reproducibility presented less than 20% of variability¹. Moreover, uniformity throughout the tissue section was tested with excellent results, obtaining a signal gradient under 10% over 1 cm of tissue¹. This opens opportunities for users to analyze images and quantify signals using Akoya's imaging and software tools.

These short turnaround times are achieved thanks to a novel microfluidic tissue processor lying at the core of Lunaphore's innovation, which allows researchers to perform rapid cycles of optimization in order to reach and repeat the desired multiplexed stainings, without the need to invest in traditional workflow automation instruments.

Disclaimer: LabSat[™] Research is approved for Research Use Only and not available for diagnostic procedures. Only marketed in Europe.

¹ Data on file.

Lunaphore's co-founder and CTO, Diego G. Dupouy, said: "The great stainings obtained with our platform are the result of team effort by Lunaphore and Akoya, as we push both of our technologies to the next level. Our goal is to combine short turnaround times with high-quality stainings in order to enable researchers to develop their own immunophenotyping panels in unprecedented times".

With the arrival of ultra-rapid automated multiplexing in LabSat™, Lunaphore brings together state-of-the-art multiplexing techniques, the high reproducibility of automation systems and an unmatched speed performance, now at the reach of medium and small laboratories.

About Lunaphore

Lunaphore Technologies S.A. is a Swiss company developing next generation tissue autostainers. The award-winning technology based on microfluidics is called FFeX (Fast Fluidic Exchange). It aims to perform assays much faster than standard techniques and has demonstrated good results in tests with cancer patient samples. Lunaphore was founded in 2014 with the vision of bringing -omics like approaches to tissue diagnostics and has been recognized as one of the most innovative companies nationally and internationally.

About LabSat™ Research

LabSat™ Research is a single-slide, ultra-rapid reagent delivery system performing IHC/IF tests on tissue samples for Research Use Only. The breakthrough speed performance of the device is achieved thanks to a novel microfluidic tissue processor lying at the core of Lunaphore's innovation. This patented technology enables high precision tissue staining, with a drastic reduction of reagent incubation times.

About IHC/IF and multiplexing

Immunohistochemistry (IHC) staining is a technique that involves the use of antibodies to detect the presence of specific cancer biomarkers on a tissue sample. During an IHC test, the tissue is stained with labelled antibodies, producing a coloring on the tissue that is observable with a bright-field microscope. This coloring or staining will signal the presence and localization of specific cancer biomarkers within the tissue. Immunofluorescence (IF) is a similar technique which instead produces fluorescent stainings observable with a fluorescence microscope. IHC and IF are among the most common tests in immuno-oncology research to support scientists in the identification of specific cancer types.

In order to analyze the tumor microenvironment, understanding the spatial organization and co-expression of multiple biomarkers in a tissue section is of key importance. With this purpose, it is possible to stain and visualize several targets simultaneously with a technique known as

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multiplexed IHC or IF. With Akoya's Opal® fluorescent kits -4-color and 7-color- 3 and 6 biomarkers, respectively, can be stained at once in order to maximize the obtention of information from each tissue section.

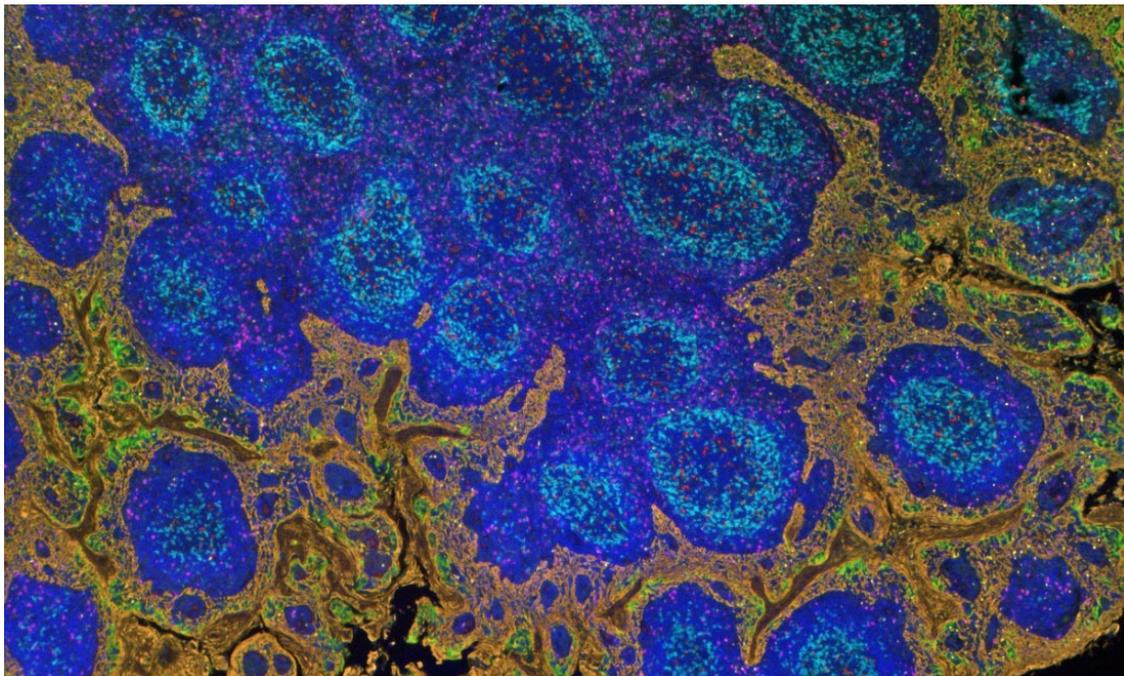
For further information contact:

Irene Tamayo

Lunaphore Corporate Communications
Email: communications@lunaphore.com
Phone: +41 21 353 58 22

Andrea Büchler

Lunaphore Finance and Business Development
Email: andrea.buechler@lunaphore.com
Phone +41 79 598 40 73



FFPE IF of tonsil, 6-plex + DAPI. Total staining time: 4h12

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