August 31, 2014

Early Access Program For New Imaging Mass Cytometry Platform

SOUTH SAN FRANCISCO, Calif., July 31, 2014 - Fluidigm Corporation (NASDAQ:FLDM) has begun accepting applications to an early access program for its upcoming imaging mass cytometry platform. Prototypes of the product are expected to begin shipping to early access partners by the end of this year.

The technology - laser ablation of a sample in combination with inductively coupled plasma mass spectrometry - builds upon the foundation of Fluidigm's CyTOF® mass cytometry platform to obtain spatial resolution of protein expression in samples at the single-cell level. Today, tissue imaging is typically conducted using microscopes, where much of the information is qualitative and the technique faces severe limitations in the number of proteins that can be stained and visualized concurrently. Fluidigm's new technology is projected to bring quantitative measurement (using metal isotope tagging that is a basis of the CyTOF technology) into this field, while offering analysis of more than 30 proteins and resolution down to about one micron.

"Currently, the CyTOF platform allows researchers to simultaneously investigate more than 30 parameters at a single-cell level," said Gajus Worthington, Fluidigm President and Chief Executive Officer. "The next major evolution in single-cell biology is to address in situ single-cell analysis enabled by imaging mass cytometry. This exciting extension of mass cytometry combines an upfront laser ablation module with the CyTOF platform. This will enable scientists to track protein identity, quantity, and location within a tissue sample, allowing entirely new studies of cellular heterogeneity and function," Worthington continued.

The imaging mass cytometry methodology uses tissues (which can be FFPE material) that are stained with a cocktail of more than 30 antigen-specific antibodies that have been tagged with different metal isotopes. The dried samples are inserted into an ablation chamber where the tissue is scanned by a small-spot-size pulsed laser. Tissue from a one micron spot is vaporized on each laser shot and is carried with high time-fidelity into the CyTOF mass cytometer. The metal isotopes associated with each spot are measured and indexed against the location from which the laser lifted the material. The tissue is scanned spot-by-spot along a raster scan line, and sequential scan lines ultimately yield an intensity map of the target proteins throughout the tissue or the region of interest.

"As originally described in a seminal publication by Giessen et al. (Nature Methods 11, 417-422 (2014)), the adaptation of a novel laser ablation device offers to transform the biologist's toolbox, providing the CyTOF multi-parameter advantage in a tissue imaging format that additionally provides critical spatial information," noted Scott Tanner, Fluidigm global Chief Technology Officer.

"The new imaging mass cytometry method employs a unique and proprietary combination of laser, ablation chamber design, and gas fluidics to provide approximately one micron spatial resolution. This allows, for the first time, the scientist to interrogate tissue sections for more than 30 protein antigens at sub-cellular resolution while providing the context of tissue localization," explained Tanner.

The new platform instrument will provide researchers with a tool to study solid tumor cancers, or to inquire into intercellular (intra-tissue) communication, all with a higher degree of combined chemical and spatial information than ever before.

Academic research, biopharma and pathology labs are the likely markets for this new technology.

Researchers that are interested in participating in Fluidigm's early access program for its new imaging mass cytometry platform should contact Scott Tanner at scott.tanner@fluidigm.com.

Use of Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements relating to our new products and programs and our plans, objectives, expectations and/or strategies relating to such new products and programs. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results. Factors that could materially affect future results include, but are not limited to, challenges inherent in developing, manufacturing, and launching new products. Information on these and additional risks, uncertainties, and other information affecting our business and operating results are contained in our Annual Report on Form 10-K for the year ended December 31, 2013, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, and other filings with the

Securities and Exchange Commission. Additional information will also be set forth in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 to be filed with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Fluidigm Corporation disclaims any obligation to update these forward-looking statements except as may be required by law.

About Fluidigm

Fluidigm (NASDAQ:FLDM) develops, manufactures, and markets life science analytical and preparatory systems for growth markets such as single-cell biology and production genomics. We sell to leading academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology companies worldwide. Our systems are based on proprietary microfluidics and multi-parameter mass cytometry technology, and are designed to significantly simplify experimental workflow, increase throughput, and reduce costs, while providing excellent data quality. Fluidigm products are provided for Research Use Only. Not for use in diagnostic procedures.

For more information, please visit: http://www.fluidigm.com.

Contact

Michaeline Bunting
Senior Director, Marketing
Fluidigm Corporation
650 737 4190
michaeline.bunting@fluidigm.com