

FLUIDIGM

Fluidigm Introduces REAP-Seq for Multi-Omic Single-Cell Analysis on the C1

January 31, 2019

First commercially available, automated single-cell analysis application to enable co-detection of cellular protein and RNA expression using microfluidics technology

SOUTH SAN FRANCISCO, Calif., Jan. 31, 2019 (GLOBE NEWSWIRE) -- Fluidigm Corporation (NASDAQ:FLDM), a leader in mass cytometry and microfluidics technologies, today announced the introduction of a REAP-seq (RNA expression and protein sequencing) protocol for use with the C1™ system. C1 REAP-seq is a powerful multi-omic single-cell application that enables deep characterization of unique cellular subtypes and functional states by measuring the expression of both cellular proteins and RNAs. Capable of pairing with functional imaging assays that measure differences in cell size, morphology or phenotype within the clear C1 microfluidic cell chambers, C1 REAP-seq represents a significant step forward in multi-omic analysis for basic and translational research.

"C1 REAP-seq is a powerful new protocol that will enable researchers to gain greater understanding of the underlying mechanisms of cancer progression and immune response," said Carsten Krieg, PhD, Single Cell Analytics LLC. "Providing an unprecedented view into the dynamics of protein expression at single-cell resolution, C1 REAP-seq offers a new paradigm to accelerate the identification of actionable biomarkers and drug targets."

C1 REAP-seq was developed in collaboration with Merck for co-detection of both cellular protein and RNA using microfluidics technology. Utilizing the REAP-seq technology developed and published in *Nature Biotechnology* by Merck scientists ([Peterson et al., 2017](#)), C1 REAP-seq allows simultaneous analysis of up to 82 different proteins and more than 20,000 genes per cell in a single workflow. Cellular proteins are identified using third-party antibodies conjugated to unique 15-base pair barcodes that are detected by next-generation sequencing. The application is ideal for deep characterization of hundreds to thousands of cells downstream of cell atlas studies, enabling the simultaneous detection of more cell surface protein markers than traditional cytometry approaches alone.

"C1 REAP-seq is an important addition to our expanding menu of multi-omic single-cell applications," said Chris Linthwaite, President and CEO of Fluidigm. "Empowering our customers with new microfluidics tools to identify meaningful DNA, RNA, protein and epigenetic biomarkers is central to powering new health care insights."

About Fluidigm

Fluidigm (NASDAQ:FLDM) develops, manufactures, and markets life science analytical and preparatory systems for markets such as mass cytometry, high-throughput genomics, and single-cell genomics. We sell to leading academic institutions, clinical research laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology companies worldwide. Our systems are based on proprietary microfluidics and multiparameter 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.

We use our website (www.fluidigm.com), corporate Twitter account ([@fluidigm](#)), Facebook page (<https://www.facebook.com/fluidigm>), and LinkedIn page (<https://www.linkedin.com/company/fluidigm-corporation>) as channels of distribution of information about our products, our planned financial and other announcements, our attendance at upcoming investor and industry conferences, and other matters. Such information may be deemed material information, and we may use these channels to comply with our disclosure obligations under Regulation FD. Therefore, investors should monitor our website and our social media accounts in addition to following our press releases, SEC filings, public conference calls, and webcasts.

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Forward-Looking Statement for Fluidigm

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others, statements regarding the anticipated benefits of newly introduced products and the growth and potential of single-cell biology research. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results, including but not limited to risks relating to challenges inherent in developing, manufacturing, launching, marketing, and selling new products; potential product performance and quality issues; intellectual property risks; and competition. Information on these and additional risks and uncertainties and other information affecting Fluidigm business and operating results is contained in Fluidigm's Annual Report on Form 10-K for the year ended December 31, 2017, and in its other filings with the Securities and Exchange Commission, including the Fluidigm Quarterly Report on Form 10-Q for the quarter ended September 30, 2018. These forward-looking statements speak only as of the date hereof. Fluidigm disclaims any obligation to update these forward-looking statements except as may be required by law.

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