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Fluidigm Announces First Multimodal Single-Cell Application for the C1

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Pairing epigenetic profiling with T cell receptor sequencing at single-cell resolution to advance cancer, immunology and stem cell research

SOUTH SAN FRANCISCO, Calif., July 10, 2018 (GLOBE NEWSWIRE) -- Fluidigm Corporation, a leader in mass cytometry and microfluidics technologies, today announced a new bimodal single-cell application available for use on the C1™ system.

Offering a new assay to measure transposase-accessible chromatin (ATAC) and T cell receptor (TCR) reporter gene expression from each cell, the new T-ATAC-seq application provides a powerful tool to uncover new insights in the development of the immune system and its role in a range of human diseases.

The C1 system offers the widest menu of unique single-cell applications, enabling deep profiling of single cells within complex enriched or non-enriched cell populations. Used by hundreds of laboratories around the world, C1 captures and processes each single cell using proprietary microfluidics technology, maximizing molecular detection sensitivity. When using C1 together with the C1 Open App™ application, researchers also have the unique ability to build new innovative applications that go beyond conventional single-cell mRNA sequencing.

Single-cell researchers seek to gain an understanding of genome-wide chromatin accessibility while at the same time maintaining and measuring RNA expression. Taking advantage of the open protocol and script development feature and C1 Open App integrated fluidic circuits, Stanford University researchers led by Dr. Ansuman Satpathy developed T-ATAC-seq to pair specific receptor sequences and epigenomic states in single cells. Published in *Nature Medicine* and publicly available on Fluidigm® [Script Hub](#)™, T-ATAC-seq was applied by Satpathy to samples from T cell leukemia tissues to identify cancer clone-specific epigenomic signatures unobservable from previous studies.

"T-ATAC-seq allows for unprecedented molecular views of antigen-specific T cells by pairing measurements of T cell receptor sequence with chromatin accessibility genome-wide in single cells," said Satpathy. "The development of this technology was really enabled by the C1 Open App system, where we could easily design nanoliter-scale single-cell reactions *in silico*, implement them in Script Builder™, and then within hours test them in the laboratory."

T-ATAC-seq is the 21st single-cell method enabled on the C1 system, including RNA sequencing, targeted gene expression, miRNA profiling, whole genome and exome sequencing, targeted gene sequencing, and epigenetic applications. Applications available on Script Hub are open to the C1 research community and are compatible with any C1 system. Each application includes the protocol, reference data, script, and links to publications.

"Providing a full 360-degree view of the cell, the C1 is the cornerstone for laboratories around the world to deeply characterize cell phenotypes at single-cell resolution," said Chris Linthwaite, President and CEO of Fluidigm. "This new application developed in collaboration with Dr. Satpathy uniquely demonstrates the capability of the C1 system to empower the next generation of single-cell analysis through multi-omic detection."

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 development of additional products. 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 uncertainties in contractual relationships; 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 March 31, 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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