

High Throughput Single-Cell mRNA Sequencing Preparation Comes to the Fluidigm C1™

Now Every Laboratory can have Access to Large-Scale Surveys of Heterogeneity

SOUTH SAN FRANCISCO, California, Aug. 25, 2015 – Fluidigm Corporation (NASDAQ: FLDM) today announced commercial availability of a new high throughput single-cell mRNA sequencing workflow for its C1™ system to enable large-scale studies to characterize heterogeneous samples. This validated workflow includes a new advanced integrated fluidic circuit (IFC) and reagent kit that significantly increases throughput and ease-of-use, while simultaneously decreasing the cost of preparation and sequencing (by maximizing sequencer capacity) on a per-cell basis. The C1 mRNA Seq HT application is the first and only commercial product to address large single-cell studies and is available today.

Researchers can apply the new HT workflow to explore heterogeneity in fields such as cancer, neuroscience, stem cell biology and immunology to understand how the underlying cellular mechanisms impact biological processes or disease progression. This new offering is a complete solution that enables scientists to deeply explore the diversity of cell subpopulations, quickly discover novel or rare cell types, and increase the statistical sample size to better estimate biological variation between similar cell types.

The C1 mRNA Seq HT IFC can capture up to 800 cells at a time, and employs a new protocol to facilitate two runs – or 1600 cells – a day. Additionally, the IFC features two cell loading inlets to facilitate "case versus controls" studies, allowing users more flexibility in their experimental design. The assay protocol enables on-IFC multiplexing and cell pooling that provides users with a streamlined workflow. The complete workflow reduces customer library preparation costs by approximately 85% when compared to the original C1 mRNA Seq IFC costs, while maintaining the automation and reproducibility of the C1 platform. It is the only single-cell workflow that also allows automated staining to visualize the isolation and viability of individual cells.

The new HT workflow makes studies of 1,000 to 10,000 cells feasible. The higher throughput and creative cell multiplexing strategy allows customers to maximize sequencer capacity utilization. Just two C1 mRNA Seq HT IFCs can now fill an entire HiSeq flow cell with 1600 cells, maintaining a read depth of 1 million reads per cell.

"Our knowledge of cell populations is largely limited by our ability to precisely study many cells at a transcriptome level," said Gajus Worthington, Fluidigm President and Chief Executive Officer. "The C1 mRNA Seq HT application substantially alleviates this challenge – our customers can now process 1600 cells per day for transcriptome sequencing. Unlike error-prone, expensive and laborious manual methods, such as FACS with plate-based workflows, the C1 mRNA Seq HT workflow provides a high throughput, easy-to-implement, reliable, and low cost solution not previously available to single-cell researchers exploring cell heterogeneity," Worthington continued.

The Technology

The Fluidigm C1 Single-Cell Auto Prep System is based on the company's innovative microfluidic technology that enables researchers to rapidly and reliably isolate, process, and profile individual cells for genomic analysis. The high throughput single-cell mRNA sequencing workflow is the latest application enabled on the C1 system, which currently supports targeted gene expression, mRNA sequencing, miRNA expression profiling, targeted DNA sequencing and whole exome sequencing.

Use of Forward-looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements relating to Fluidigm's new products and Fluidigm's opportunities, objectives, expectations and/or strategies relating to such new products. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results, including challenges inherent in developing, manufacturing, launching, marketing, and selling new products. Information on these and additional risks affecting Fluidigm's business and operating results are contained in its filings with the Securities and Exchange Commission, including its most recently filed Quarterly Report on Form 10-Q for the quarter ended June 30, 2015. These forward-looking statements speak only as of the date hereof and Fluidigm disclaims any obligation to update these 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.

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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