December 28, 2014

New Single-Cell Whole Genome Sequencing Workflow

New C1 Application Enables Researchers to Discover Genetic Signatures

SOUTH SAN FRANCISCO, Calif., Dec. 29, 2014 – Fluidigm Corporation (NASDAQ:FLDM) today announced a new single-cell application for its C1TM system that improves whole genome sequencing of individual cells. Single-cell whole genome sequencing allows researchers to explore mutations in regulatory and protein coding regions of the genome in order to identify novel signatures within heterogeneous cell populations. This application will empower cancer researchers to discover and define specific mutation profiles to predict cancer susceptibility, metastasis, and therapeutic efficacy.

“It is essentially impossible to understand the distribution of mutations, rearrangements and copy number changes among cells through bulk sequencing,” said Gajus Worthington, Fluidigm President and Chief Executive Officer. “We have made single-cell DNA sequencing accessible, and believe that this can usher in a whole new phase of discovery in single-cell biology.”

Researchers are profiling genetic signatures of tumors and other complex diseases to identify the unique cell lineages driving disease onset. These diseases are often driven by somatic mutations that originate in individual cells and create genetically diverse clonal populations. As mutated cells proliferate, they generate complex polyclonal networks that may lead to the onset and recurrence of disease and the failure of therapies.

Traditionally, sequencing of bulk samples has been used to identify mutations across whole populations of cells within diseased tissues. However, it is impossible to associate mutation profiles to specific cells and identify genetic traits responsible for aberrant cell behavior.

With single-cell whole genome sequencing, researchers can get the whole picture. The C1 Single-Cell Whole Genome Sequencing workflow provides a comprehensive and reliable single-cell workflow to identify mutations in both regulatory and protein-coding regions of the genome and directly associate these variants to specific clonal populations.

Fluidigm’s new single-cell whole genome sequencing workflow is optimized to provide robust amplification of DNA templates from 96 single cells without compromising fidelity. By reducing reaction volumes, it saves >75% in sequencing preparation costs. The output yield from each single cell is sufficient to conduct multiple rounds of DNA sequencing. With the release of this workflow, Fluidigm now has a complete suite of sequencing protocols that enable researchers to easily pursue whole genome, whole exome, and targeted sequencing from an individual cell.

Cancer Webinar: Striving for a Cure, One Cell at a Time

Fluidigm recently hosted a cancer webinar that focused on Single-Cell DNA sequencing as a tool to discover predictive markers for cancer onset, metastasis, and therapy response. Featured in the webinar are some of the world’s most notable experts: Oxford University’s Paresh Vyas, whose field of expertise is predictive markers for AML and McGill University’s Jiannis Ragoussis, whose research focuses on constructing predictive biomarker panels for breast cancer treatment.

To view the recorded webinar and learn more, please go to:https://www.fluidigm.com/articles/striving-for-a-cancer-cure-one-cell-at-a-time.

Technology

The Fluidigm C1 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 Single-Cell Whole Genome Sequencing workflow is the sixth application enabled on the C1 system, which also 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 September 30, 2014. 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.

For more information, please visit www.fluidigm.com.

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