



Fluidigm Showcases RNA Sequencing Innovations Using Microfluidics Technology at the 2019 American Society of Human Genetics (ASHG) Meeting

October 15, 2019

Delivering automated RNA workflows to significantly reduce cost per sample and hands-on time using microfluidics technology

SOUTH SAN FRANCISCO, Calif., Oct. 15, 2019 (GLOBE NEWSWIRE) -- Fluidigm Corporation (NASDAQ:FLDM), an innovative biotechnology tools provider with a vision to improve life through comprehensive health insight, will showcase innovative RNA sequencing applications using microfluidics technology at the American Society of Human Genetics (ASHG) annual meeting in Houston, Texas, from October 15 to 19.

"As the demand for RNA NGS sequencing continues to rise, many genomics laboratories have found it challenging to affordably scale NGS library preparation," said Chris Linthwaite, President and CEO of Fluidigm. "This year at ASHG, we are excited to showcase a breakthrough automated RNA sequencing library preparation workflow that enables laboratories to efficiently produce 48 libraries at a time while substantially reducing their cost per sample. By automating the library prep workflow, shortening hands-on time and decreasing consumables waste, we can bring operational savings to mid-to-high-throughput laboratories using microfluidics technology that could amount to hundreds of thousands of dollars."

Featured RNA Sequencing and Genomic Applications

- The [Advanta™ RNA-Seq NGS Library Prep Kit](#) enables researchers to reduce their costs for full-length stranded libraries by up to 50% using microfluidics technology. Developed for use with the Fluidigm Juno™ microfluidic system, the kit enables an automated workflow that requires only 10 ng of total RNA and can reduce operator interventions and total hands-on time to approximately two hours, a decrease of more than 70% as compared to traditional manual methods.

Results using the Advanta RNA-Seq Library Prep workflow with samples down to 1 ng total RNA will be presented on Friday, October 18, by Michael L. Phelan, PhD, of Fluidigm in a poster titled, "Integration of molecular chemistries supporting a full-length mRNA sequencing library preparation method on a microfluidic circuit" (poster 1874F).

- The [Advanta RNA Fusions NGS Library Prep Assay](#) profiles over 1,000 known gene fusion breakpoints present in tumor RNA, automating library preparation for subsequent analysis on Illumina® NGS platforms. Requiring as little as 10 ng of RNA material per sample, the automated microfluidic workflow reduces hands-on time and lowers reaction volumes to nanoliter scale, delivering significant cost savings per samples. Designed to work in coordination with the [Advanta Solid Tumor NGS Library Prep Assay](#) in a single, simple workflow, the RNA Fusions Assay enables researchers to prepare NGS libraries for up to six different panels at a time with 10-fold lower sample input.

Performance using both Advanta oncology assays will be presented on Friday, October 18, by Tom Goralski, PhD, of Fluidigm in a poster titled, "Two NGS library prep panels for analyzing tumor cells for actionable mutations using a flexible, automated microfluidics platform" (poster 1754F).

- The [C1™ system](#) provides a 360-degree view of single cells with the widest menu of unique multi-omic applications including co-detection of mRNA with noncoding RNAs, protein expression, DNA and more. Using proprietary microfluidics technology, C1 captures and processes each single cell within complex enriched or non-enriched cell populations, 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.

Exhibitor Workshops Utilizing Fluidigm Microfluidics Technology

- On Wednesday, October 16, Fluidigm will host a lunch workshop titled Redefining Library Prep for RNA-Seq Applications—A Microfluidics-Based Approach for Superior Workflow Efficiencies. David King, PhD, Vice President, Genomics Research and Development, will provide an overview of the development of the Advanta RNA-Seq NGS Library Prep system. Scott Magness, PhD, Associate Professor at the University of North Carolina School of Medicine, will present results using the Advanta Library Prep workflow to detect change in gene expression in response to hypoxia.
- On Thursday, October 17, Fluidigm will host a breakfast workshop titled Moving Beyond Classification of Single Cells in Complex Systems Leveraging Microfluidics. Jason McKinney, Director of Single-Cell Cell Genomics, will describe a total RNA-seq approach for automated NGS library prep of single cells using microfluidics technology, enabling full-length transcript analysis of both poly(A) and non-poly(A) genes while also retaining strand orientation. Additional C1 applications

including CORTAD-seq (full-length mRNA and targeted genomic DNA from the same cell) and REAP-seq (mRNA and protein expression from the same cell) will also be presented.

More information on the Fluidigm products and presentations can be found at Fluidigm Booth 1107 or at fluidigm.com/ashq2019.

About Fluidigm

Fluidigm (NASDAQ:FLDM) is an industry-leading biotechnology tools provider with a vision to improve life through comprehensive health insight. We focus on the most pressing needs in translational and clinical research, including cancer, immunology, and immunotherapy. Using proprietary CyTOF® and microfluidics technologies, we develop, manufacture, and market multi-omic solutions to drive meaningful insights in health and disease, identify biomarkers to inform decisions, and accelerate the development of more effective therapies. Our customers are leading academic, government, pharmaceutical, biotechnology, and plant and animal research laboratories worldwide. Together with them, we strive to increase the quality of life for all. For more information, visit fluidigm.com.

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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 to customers of, and applications for, Fluidigm 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 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, 2018, and in its other filings with the Securities and Exchange Commission. 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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