

Fluidigm Highlights New Advancements in Deep Cellular Profiling from Circulation to Tissue at CYTO 2019

June 20, 2019

Leading translational and clinical researchers will showcase how Fluidigm products are revolutionizing highly multiplexed cell and tissue characterization, biomarker discovery and therapeutic research development in more than 70 presentations and posters

SOUTH SAN FRANCISCO, Calif., June 20, 2019 (GLOBE NEWSWIRE) -- Fluidigm Corporation (NASDAQ:FLDM), an innovative biotechnology tools provider with a vision to improve life through comprehensive health insight, will showcase its highly multiplexed cellular profiling solutions for immunology and immunotherapy research as a Gold Sponsor at the 34th Congress of the International Society for Advancement of Cytometry (CYTO[®] 2019) in Vancouver, British Columbia.

"The progress being made to advance our understanding of health and disease using CyTOF[®] technology has been truly impressive. Now used in more than 40 clinical research trials and by multiple consortia around the world, CyTOF technology is offering new insights in cancer, autoimmune and infectious disease, neurological disorders and more," said Chris Linthwaite, President and CEO of Fluidigm. "Over the next few days we'll be sharing our latest highly multiplexed applications to deliver new insights into the immunome, accelerate biomarker discovery and power the development of new immunotherapies."

Featured Immunology and Immunotherapy Research Applications

- Setting an industry first for highly multiplexed cytometry, <u>mass cytometry</u> has enabled researchers to simultaneously interrogate more than 50 cell surface and intracellular parameters at a time, all from a single sample tube. By providing 135 unique channels to detect different cellular parameters, Fluidigm[®] mass cytometry systems can meet the needs of researchers today and well into the future. Seven new <u>cadmium metal labeling kits</u> planned for release in the third quarter will be showcased, empowering researchers to easily design and customize large panels to advance biomarker discovery and therapeutic development.
- Introducing the new standard in immune profiling, the Fluidigm<u>Maxpar[®] Direct[™] Immune Profiling System</u> is the first complete sample-to-answer solution for deep human immune cell profiling using mass cytometry. Developed for use with <u>Helios[™], a CyTOF system</u> it empowers researchers to quantify 37 different immune cell populations from human peripheral blood mononuclear cells (PBMC) and whole blood using a simple single-tube workflow with automated five-minute results reporting.

On Monday, June 24, Stephen Li, PhD, of Fluidigm will present results on the analytical validation of the Maxpar Direct Immune Profiling System in a poster titled A Robust Human Immunophenotyping Workflow Using Maxpar[®] Direct[™] Immune Profiling Assay[™] Coupled with Maxpar Pathsetter[™], an Automated Data Analysis Solution for Mass Cytometry Additional presentations on the Maxpar Direct Immune Profiling System will be given daily at Fluidigm Booth 426 from Sunday, June 23, to Wednesday, June 26.

- Imaging Mass Cytometry[™] is powering new breakthroughs globally with more than 25 scientific publications and an established footprint of more than 50 commercially enabled systems in more than 10 countries. Ideal for deep cellular phenotyping in tissue and tumor microenvironments, the Hyperion[™] Imaging Systemenables simultaneous imaging of up to 37 protein markers from a single scan of formalin-fixed, paraffin-embedded (FFPE) or fresh tumor sections. Exciting new CyTOF Software enhancements that streamline the acquisition of multiple regions of interest from each slide and guide automated batch acquisition of highly multiplexed images at 1-micron resolution will be highlighted.
- Three new Imaging Mass Cytometry Maxpar panel kits for immuno-oncology will be showcased. Developed using
 pathologist-verified antibodies, the panels can be mixed and matched to profile tumor-infiltrating lymphocytes, immune cell
 activation states and tissue architecture. By combining them as a single 18-marker panel, researchers can broadly profile
 activated tumor-infiltrating lymphocytes for single-cell analysis of the tumor architecture, all from a single tissue scan.
 Customization is also simplified using CyTOF technology, enabling researchers to easily add more than 10 markers to
 support specific translational and clinical research studies. The panel kits will be available for sale in the third quarter.

On Monday, June 24, Dongxia Lin, PhD, of Fluidigm will present highly-multiplexed imaging results using a 27-marker panel containing structural, cancer, and immuno-oncology markers in a poster titled Exploring Healthy and Tumor Tissue

Microenvironments with Immuno-Oncology Markers Using Multiplexed Analysis on the Hyperion Imaging System. Additional presentations will be given daily at Fluidigm Booth 426 from Sunday, June 23, to Wednesday, June 26.

CYTO 2019 Tutorial

On Sunday, June 23, Fluidigm will host a tutorial titled Deep Profiling of Immune Cell Phenotypes and Function from Circulation to Tissue with CyTOF Technology. At the event Michelle Poulin, PhD, of Fluidigm will introduce the Maxpar Direct Immune Profiling System. Data demonstrating high repeatability, site-to-site reproducibility and software precision will be shown. Thomas Ashhurst, BSc, High-Dimensional Cytometry Specialist at the Sydney Cytometry Facility in Australia, will present his research on how viral infection of the central nervous system stimulates a rapid influx of bone marrow-derived monocytes and macrophages into the parenchyma. He will describe use of Imaging Mass Cytometry to perform high-dimensional tissue profiling to gain a more comprehensive analysis of the key factors involved in this mobilization of the immune system.

Presentation Highlights

During the meeting, researchers from leading cancer centers and academic medical centers will share more than 70 presentations and posters using Fluidigm technologies. Of these, a few notable presentations include:

- Atul Butte, MD, PhD, Director of the Bakar Computational Health Sciences Institute at the University of California, San Francisco, and Chief Data Scientist for University of California Health System, will present new research studies of immunology, therapies and diagnostics based on the translation of a trillion points of data on June 23.
- Jonathan Irish, PhD, Assistant Professor, Department of Cell and Developmental Biology at Vanderbilt University School of Medicine, will present an analysis of single-cell interrogation of phosphoprotein signaling that successfully revealed novel leukemia and lymphoma cell types on June 24.
- Alice Wiedeman, PhD, of the Benaroya Research Institute at Virginia Mason, will present an analysis of rare autoreactive T cells in type 1 diabetes using CyTOF plus DISCOV-R on June 26.

More information on the Fluidigm events, products and research presentations and posters at CYTO 2019 using Fluidigm technologies can be found at Fluidigm Booth 426 or at <u>fluidigm.com/events/cyto-2019</u>.

8th Annual Fluidigm Mass Cytometry Summit

In advance of CYTO 2019, Fluidigm will kick off its annual Mass Cytometry Summit today in Vancouver. The largest global mass cytometry meeting of its kind, the action-packed two-day program includes more than 30 speakers from around the world. New this year are two special-topic breakout sessions: a panel discussion for core directors, and presentations and discussion on best practices from experts. This year's Summit will include opening remarks from Andrew Quong, who became Fluidigm's Chief Science Officer in May of this year. He is the first to serve in this type of role at Fluidigm since 2012. Marc Unger served as Chief Scientific Officer from 2007 to 2012. For more information visit fluidigm.com/summit2019.

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 of newly introduced products and the growth and potential of immune profiling and Fluidigm products for mass cytometry and Imaging Mass Cytometry. 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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