Fluidigm Mass Cytometry Technologies, Including CyTOF, Imaging Mass Cytometry and Maxpar Direct, Utilized in More than 100 National Clinical Trials

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25 Trials Utilizing Mass Cytometry Initiated in 2020

SOUTH SAN FRANCISCO, Calif., Nov. 03, 2020 (GLOBE NEWSWIRE) -- Fluidigm Corporation (NASDAQ:FLDM), an innovative biotechnology tools provider with a vision to improve life through comprehensive health insight, today announced that its mass cytometry technologies, including CyTOF®, Imaging Mass Cytometry (IMC), and Maxpar® Direct™, have been used in 113 National Clinical Trials listed in the clinicaltrials.gov database. This includes 94 ongoing and 19 completed clinical trials. Twenty-five trials were initiated in 2020, three of which utilize Imaging Mass Cytometry.

Fluidigm® mass cytometry technologies have been deployed in multiple clinical trials related to the COVID-19 pandemic, including evaluation of immune response at different stages of the disease process and assessment of response to therapy at the cellular and molecular levels. These technologies are also being used in clinical trials for diverse indications and interventions in immuno-oncology, oncology, autoimmune diseases, vaccines, infections, surgery, blood and immune disorders, immunology, and allergy.

“The large and growing number of clinical trials utilizing our mass cytometry technologies is evidence of our progress in implementing our vision to improve life through comprehensive health insight,” said Chris Linthwaite, President and CEO of Fluidigm. “We are gratified that our technologies are enabling cutting-edge discoveries that have the potential to transform clinical trial design and implementation, and we believe that ultimately they will help to advance clinical practice to achieve improved health outcomes.

“The rapid deployment of our technologies to support clinical research addressing the current global health crisis demonstrates the flexibility with which those technologies can be adapted to meet specific and urgent research objectives, including pandemic response.”

Examples of the diverse ways in which Fluidigm mass cytometry technologies are being incorporated into clinical trials as of September 30, 2020:

- “Immunophenotyping Assessment in a COVID-19 Cohort (IMPACC)” (NCT04378777), “a prospective observational cohort surveillance study of up to 2,000 adult participants hospitalized with known or presumptive COVID-19,” explores how certain immunological measures correspond to, or may even predict, the clinical severity of disease. Ten leading U.S. medical institutions are engaged in the study, which is sponsored by the National Institutes of Health and uses CyTOF and the Maxpar® Direct™ Immune Profiling Assay™

- “Collection of Immunology Specimens From Patients With Cancer or Blood Disorders, and Healthy Volunteers” (NCT03207854), a retrospective clinical trial designed to “identify changes in immune system parameters in patients receiving immunotherapies and compare” them to changes in “patients receiving conventional chemotherapy, targeted-agent therapy, and healthy normal volunteers.” This trial uses CyTOF.

- “Olaparib in Treating Patients with Advanced Glioma, Cholangiocarcinoma, or Solid Tumors with IDH1 or IDH2 Mutations” (NCT03212274), a phase II trial designed to evaluate “how well olaparib works in treating patients with glioma, cholangiocarcinoma, or solid tumors with IDH1 or IDH2 mutations that have spread to other places in the body and usually cannot be cured or controlled with treatment.” An exploratory objective of this study is to determine whether co-occurring genetic alterations are associated with levels of 2-hydroxyglutarate (a marker of cancer progression), treatment response, and resistance to therapy. This trial uses CyTOF and IMC.

- “Study of a New MVA Vaccine for Hepatitis C Virus” (NCT01296451), a study designed to assess the safety and efficacy of a new hepatitis C virus vaccine that will also evaluate cellular immune responses following vaccine administration. This trial uses CyTOF to perform deep profiling of cell phenotype and functional state, all in a single tube.

- “In-depth Immunological Investigation of COVID-19 (COntAGIouS)” (NCT04327570), an observational clinical trial designed to provide an “in-depth characterization of the dynamic host immune response to coronavirus SARS-CoV-2” using a transdisciplinary approach “to identify host factors resulting in hyper-susceptibility to SARS-CoV-2 infection, which is urgently needed for directed medical interventions.” This trial uses CyTOF, the Maxpar Direct Immune Profiling Assay, and the Maxpar Pathsetter™ data analysis solution.

Commenting on the COntAGIouS trial, Professor Frederik De Smet, PhD, of the University of Leuven, the lead investigator for the trial, said, “At the start of the pandemic the clinicians in our hospital who were treating COVID-19 patients asked us to work collaboratively with them to understand the immunological aberrations in hospitalized patients. To address this urgent need for knowledge, my lab combined the Maxpar Direct Immune Profiling Assay with Maxpar Pathsetter, allowing rapid data analysis without the immediate need for bioinformaticians.

“This is important, because when we’re evaluating up to 40 parameters at a time for each cell—which is straightforward using CyTOF—analyzing even a few hundred thousand cells generates enormous amounts of data. With Maxpar Pathsetter we were able to establish a data analysis structure that rapidly yielded results that helped inform our understanding of the immune response to the virus and provided insights into how to potentially improve management of infected patients. In addition, we performed extensive bioinformatics analyses to integrate all 40 markers to a maximal extent and deep-phenotype each blood sample.”

About Fluidigm
Fluidigm (Nasdaq:FLDM) focuses 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, plant and animal research, and clinical laboratories worldwide. Together with them, we strive to increase the quality of life for all. For more information, visit fluidigm.com.

Forward-Looking Statements 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 impact of Fluidigm mass cytometry technologies on clinical trials and health care. 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; risks relating to company research and development and distribution plans and capabilities; reductions in research and development spending or changes in budget priorities by customers; 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, 2019, 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.

Available Information
We use our website (fluidigm.com), investor site (investors.fluidigm.com), corporate Twitter account (@fluidigm), Facebook page (facebook.com/Fluidigm), and LinkedIn page (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.

Fluidigm

Media:
Mark Spearman
Senior Director, Corporate Communications
650 243 6621
mark.spearman@fluidigm.com

Investors:
Agnes Lee
Vice President, Investor Relations
650 416 7423
agnes.lee@fluidigm.com

Source: Fluidigm Corporation