



Imaging Mass Cytometry Utilized by Global Consortium Focused on New Precision Medicine Approaches for Treatment of Rheumatoid Arthritis

May 24, 2021

FLAMIN-GO Project Seeks to Develop Organ-on-a-Chip Technology for Clinical Trials in Rheumatoid Arthritis Therapy

SOUTH SAN FRANCISCO, Calif., May 24, 2021 (GLOBE NEWSWIRE) -- Fluidigm Corporation (NASDAQ:FLDM), an innovative biotechnology tools provider with a vision to improve life through comprehensive health insight, today announced that it has joined the [FLAMIN-GO Project](#) consortium of academic and industry leaders in rheumatology, autoimmune disease research, and drug discovery and development to create an organ-on-a-chip solution toward personalized care and improved outcomes for rheumatoid arthritis (RA) patients.

Organ-on-a-chip refers to a microfluidic culture device that simulates the microarchitecture and functions of living human organs, potentially offering an alternative to traditional animal testing.

RA, an autoimmune inflammatory disorder characterized by synovial joint inflammation, affects ~0.5 to 1 percent of the global population. RA is a significant public health problem as it can lead to permanent disability. To gain insights into this disease, FLAMIN-GO Project scientists are working to develop a personalized, next-generation synovia-on-chip (SoC) that mimics the biologic complexity existing inside the rheumatic joint. To assist consortium researchers, Fluidigm is providing training, support, and equipment to perform Imaging Mass Cytometry™ (IMC™) studies utilizing a Hyperion™ Imaging System at the University of Eastern Piedmont in Novara, Italy.

IMC studies will provide critical data about patterns of protein expression among different cell types within the SoC as well as how spatial relationship among different cell types impacts their activity and response to treatment.

"Approximately 40 percent of RA patients fail to achieve even a 20 percent improvement in disease activity with currently approved therapies, and many patients do not respond to any approved treatments," said Annalisa Chiocchetti, MD, PhD, Associate Professor of Immunology at the University of Eastern Piedmont and FLAMIN-GO Project Coordinator. "The lack of biomarkers capable of predicting or monitoring response to therapy is a significant obstacle for determining which approved therapy might provide the best safety and efficacy profile for a specific patient, as well as for reducing the clinical development time and cost for investigational therapies.

"We believe that IMC studies using Fluidigm's Hyperion Imaging System will provide deeper insights into disease mechanisms, biomarkers, and factors that affect response to therapy, moving us closer to our goal of enabling personalized medicine approaches and providing improved outcomes for patients with RA."

The goal is to use the SoC for patient-specific clinical trials designed to identify and validate biomarkers that could match each RA patient to the approved therapy most likely to provide optimum safety, efficacy, and tolerability. The SoC would also enable rapid discovery and evaluation of novel therapeutic targets, opening the door to the development of additional therapies based on deeper understanding of RA biology and response to therapy.

"International consortia such as the FLAMIN-GO Project, which focus diverse expertise and capabilities on finding solutions to global human health issues, are critical for science to reach the next level in precision medicine," said Chris Linthwaite, Fluidigm President and CEO. "We are pleased that the FLAMIN-GO Project chose our Hyperion Imaging System as a primary tool in its efforts to seek a new approach to clinical trials in rheumatoid arthritis."

In addition to Fluidigm and University of Eastern Piedmont, partners in the FLAMIN-GO Project consortium include Instituto Nacional de Engenharia Biomédica, the Italian National Research Council's Institute of Nanotechnology, Queen Mary University of London, the Association for Research that Cures (ARCA), Riga Technical University, and EnginSoft Turkey.

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.

Fluidigm, the Fluidigm logo, Advanta, CyTOF, Hyperion, Imaging Mass Cytometry, and IMC are trademarks and/or registered trademarks of Fluidigm Corporation in the United States and/or other countries. The Advanta™ Dx SARS-CoV-2 RT-PCR Assay is for In Vitro Diagnostic Use. It is for Use under Emergency Use Authorization Only. Rx Only. Other Fluidigm products are provided for Research Use Only. Not for use in diagnostic procedures.

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 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; competition; and reductions in research and development spending or changes in budget priorities by customers. 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, 2020, 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](https://twitter.com/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.

About FLAMIN-GO

FLAMIN-GO's mission is to develop a personalized next-generation synovia-on-chip that by effectively mimicking the complexity of a rheumatoid arthritic joint, will permit patient-specific clinical trials-on-chip. This includes i) selecting the best on-market drug for each patient's treatment, to obtain maximum benefits, reducing risk of side effects, and ii) enabling rapid discovery and testing of new therapeutic targets, contributing to determine a new drug development path.

Fluidigm

Media:

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

Investors:

Peter DeNardo
415 389 6400
ir@fluidigm.com



Source: Fluidigm Corporation