Science for Life Laboratory Forms Swedish National Center for Single-Cell Biology

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Features Complete Set of Fluidigm Single-Cell Technologies

SOUTH SAN FRANCISCO, Calif., Feb. 5, 2015 – Fluidigm Corporation (NASDAQ:FLDM) today announced that Science for Life Laboratory (SciLifeLab) has established the Swedish National Center for Single-Cell Biology. The center features six C1TM systems, three CyTOF® 2 systems and a BiomarkTM HD system, making SciLifeLab one of the preeminent users of the full line of Fluidigm's single-cell technologies in the world.

SciLifeLab is a collaboration among four Swedish universities (Karolinska Institutet, KTH Royal Institute of Technology, Stockholm University and Uppsala University) focused on creating a leading international research center that develops new scientific techniques and workflows, and that provides access to some of the most advanced technologies for molecular biosciences to the Swedish research community.

To date, Sweden has played a prominent role in the development and use of novel sensitive molecular analysis technologies to enable the worldwide study of biology at the single-cell level. Sten Linnarsson and Rickard Sandberg at Karolinska Institutet pioneered single-cell transcriptomics methods and applied single-cell genomics to unravel the fundamental biology of transcription in early embryos and classification of cell types in the brain. Stefan Bertilsson and Thijs Ettema at Uppsala University developed single-cell genomic approaches to describe the ecology and evolution of microorganisms in environmental systems. The Ulf Landegren group at Uppsala University pioneered ultrasensitive and multiplexed nucleic acid and protein detection methodology for single-cell applications.

"Single-cell genomics is a novel research field with an already demonstrated potential to revolutionize biology and medicine," noted Sten Linnarsson, associate professor at Karolinska Institutet. "Conventional biochemistry and molecular biology have been focusing on analyses of whole tissue samples and whole microbial communities without the ability to distinguish the role of individual cells. Such bulk approaches seriously limit our understanding of cellular heterogeneity and the interplay that underlies many pivotal biological functions and processes. Single-cell analyses have been applied to understand the heterogeneity of tumors, to explain how genetically identical cells can show distinct behaviors, and to discover new, specialized cell types in complex tissues such as the brain," Linnarsson said.

"We are delighted to see the formation of the Swedish National Center for Single-Cell Biology because it epitomizes a new type of research center that brings multiple technologies together to focus on single-cells from genomics through proteomics. We believe centers focused on single-cell biology represent the wave of the future," said Robert C. Jones, Fluidigm Executive Vice President of Research and Development. "Our work with the visionary researchers from SciLifeLab has been instrumental in our early recognition and development of single-cell methods, such as the need to analyze thousands of cells or how to conduct single-cell protein detection. We look forward to gaining additional insights from our ongoing collaborations," Jones added.

The Swedish National Center for Single-Cell Biology will capitalize on recent technological advances to assess individual cells at genomic, transcriptomic, and proteomic levels to provide new insights into the heterogeneity and division of labor within tissues or communities of cells from all domains of life. The new center will operate as three complementary nodes:

- A facility for high-throughput, streamlined microfluidics-based transcriptome and genome analysis of large numbers of individual eukaryotic cells (Stockholm);
- A flexible, high capacity cell-sorter-based single-cell genomics facility for smaller microbial cells (Uppsala); and
- A cutting-edge single-cell proteomics facility based on unique technology for multiplexed protein quantification (Uppsala).

SciLifeLab hopes to implement infrastructure and advanced methods for high-throughput genomic, transcriptomic and proteomic analyses of single cells. Only a few labs in the world have the specialized skills and equipment needed to capture and process single cells and provide the proper environment for robust and contaminant-free operation of such workflows.

The new SciLifeLab infrastructure in this field will enable technological advances to become widely available to the scientific community with the long-term goal of rendering the region the world leader in advanced biomolecular single-cell analyses.

Eukaryotic Single-Cell Analysis Facility

The Stockholm node of SciLifeLab will offer single-cell RNA-seq on the Fluidigm C1 platform using the STRT protocol, as well as in a microtiter-plate format using SMART-seq2. Single-cell DNA analysis will also be offered. The facility, which was funded by a grant from the Swedish Government, will employ a total of four staff, and is expected to be available to external users in mid-2015. Computational resources will be provided by the Swedish National Infrastructure for Computing (SNIC).

Fluidigm Technologies

The C1 system is based on Fluidigm's innovative microfluidic technology that enables researchers to rapidly and reliably isolate, process, and profile individual cells for genomic analysis. The C1 system enables high-throughput single-cell mRNA sequencing, targeted gene expression, mRNA sequencing, miRNA expression profiling, targeted DNA sequencing, whole exome sequencing and whole genome sequencing.

Fluidigm's mass cytometry technology uses a novel technological approach to enable researchers to dissect intracellular networks. Mass cytometry utilizes stable, highly-quantitative metal tags that are attached to specific antibodies and quantified using mass spectrometry that clearly resolves the

metals by mass. Using the CyTOF 2 system, researchers can detect and quantify more than 30 different proteins per cell, allowing simultaneous functional and phenotypic profiling at the single-cell level. The CyTOF technology provides a high resolution proteomic profile of each cell, which distinguishes that cell from all other cells (revealing the heterogeneity of the sample), enabling comprehensive functional and phenotypic characterization of complex systems at the single-cell level and interrogation of rare cells in large populations.

The Fluidigm Biomark HD system utilizes the company's innovative integrated fluidic circuits to automate PCR reactions in nanoliter volumes to provide reliable production-scale throughput and outstanding single-cell sensitivity, with a wide variety of sample types and chemistry choices to accommodate most genomic applications. The Biomark HD system runs IFCs in either real-time or end-point read modes, bringing flexible, efficient and economical PCR solutions to a range of applications.

About SciLifeLab

SciLifeLab is a Swedish national center for molecular biosciences with a focus on health and environmental research. Governmental funding makes know-how and technologies at SciLifeLab available to researchers all over Sweden. SciLifeLab is a collaboration among four Swedish universities (Karolinska Institutet, KTH Royal Institute of Technology, Stockholm University and Uppsala University). More than 200 research groups are associated with SciLifeLab, which is situated at two nodes in Stockholm and Uppsala.

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.

We use our website (www.fluidigm.com), corporate Twitter account (@Fluidigm), Facebook page (https://www.facebook.com/Fluidigm), and LinkedIn page (https://www.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.

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