

May 12, 2021
Sysmex Corporation
ThinkCyte, Inc.

Sysmex and ThinkCyte Agree on Joint Development and Capital Alliance

- Commencing development of novel AI-based cell analyzers and testing techniques -

Sysmex Corporation (HQ: Kobe, Japan; Chairman and CEO: Hisashi Ietsugu) and ThinkCyte, Inc. (HQ: Bunkyo-ku, Tokyo, Japan; CEO: Waichiro Katsuda) announced today the signing of joint development and investment agreements during May 2021 for the commercialization of an AI-based cell analysis technology.

As healthcare becomes more precise and personalized at an accelerated rate - in tandem with the advancement of technology, development of novel testing and diagnostic technologies with high clinical value is being sought to increase the accuracy of diagnoses and optimize treatment. Meanwhile, digitalization is rapidly gaining pace in healthcare fields such as telehealth, AI-powered medical imaging analysis, and automated testing using robots.

Sysmex has been proactively acquiring technologies for analyzing cells, genes, and proteins with a high degree of precision and sensitivity. Among those technologies, a cell analysis platform has been applied to a diverse range of Sysmex products. Our current focus in this field is to develop technology that precisely analyzes cells using various kinds of information such as cell function and responsiveness, in addition to seeking greater speed in cell analysis.

ThinkCyte possesses "Ghost Cytometry technology,"¹ which analyzes morphological information of cells in a fast and simplified process, while the information that this technology gathers is far richer than what can be obtained by using the conventional flow cytometry (FCM) technique. Beyond counting and analyzing cells based on their simple morphological features, this technology allows users to classify each cell based on its detailed morphological information with respect to its characteristics and functions. This high-resolution analysis will enable highly effective determination of clinical conditions using bodily fluids such as blood, increase accuracy in a wide range of cell-based diagnosis, and lead to better personalized healthcare.

As a result of ongoing collaborative research between Sysmex and ThinkCyte increasing the feasibility of applying Ghost Cytometry technology to diagnostic techniques with high clinical value, on March 31, 2021 the two companies signed a memorandum of understanding to start full-fledged joint development of the novel AI-based cell analysis technology. Furthermore, on May 1, 2021, the two companies agreed on joint development, pursuant to which efforts will be made to commercialize cell analyzers and testing techniques using Ghost Cytometry technology for cell analysis (including research purposes) in the field of *in vitro* diagnostics (IVD). Meanwhile, Sysmex agreed on an equity investment in ThinkCyte on May 11, 2021, which is expected to allow the two companies to reinforce their robust partnership.

Through the alliance, Sysmex and ThinkCyte aim to develop novel cell analysis technology and testing techniques by integrating Sysmex's wealth of knowledge and expertise in IVD and ThinkCyte's proprietary Ghost Cytometry technology, thus contributing to the advancement and evolution of healthcare the world over.

About Sysmex Corporation

In line with its mission of “shaping the advancement of healthcare,” which is defined in the “Sysmex Way,” the corporate philosophy of the Sysmex Group, Sysmex works to contribute to the development of healthcare and the healthy lives of people. Sysmex conducts integrated R&D, manufacturing and sales, and provides support services for its instruments, reagents and software for *in vitro* testing of blood, urine and other bodily fluids. Sysmex supplies its products to medical institutions in more than 190 countries and regions throughout the world. In recent years, Sysmex has been expanding its business in the life science domain, using proprietary technologies to create new testing and diagnostic value, realize healthcare that is optimized for individual patients, and help reduce patients’ burdens and enhance their quality of life.

Company Profile

Name: Sysmex Corporation
Location: 1-5-1 Wakinohama-kaigandori, Chuo-ku, Kobe, Japan
Established: February 20, 1968
Paid-in capital: ¥12,877.7 million (as of March 31, 2020)
Lines of business: Development, manufacture, sales and export/import of diagnostic instruments, reagents and related software
URL: <https://www.sysmex.co.jp/en>

About ThinkCyte, Inc.

ThinkCyte, headquartered in Tokyo, Japan, is a biotechnology company, which develops innovative life science research, diagnostics, and treatments using integrated multidisciplinary technologies, founded in 2016. The company focuses on the research and development of drug discovery, cell therapy, and diagnostic platforms using its proprietary image-based high-throughput cell sorting technology, Ghost Cytometry. In June 2019, the company was selected for J-Startup by the Ministry of Economy, Trade and Industry of Japan.

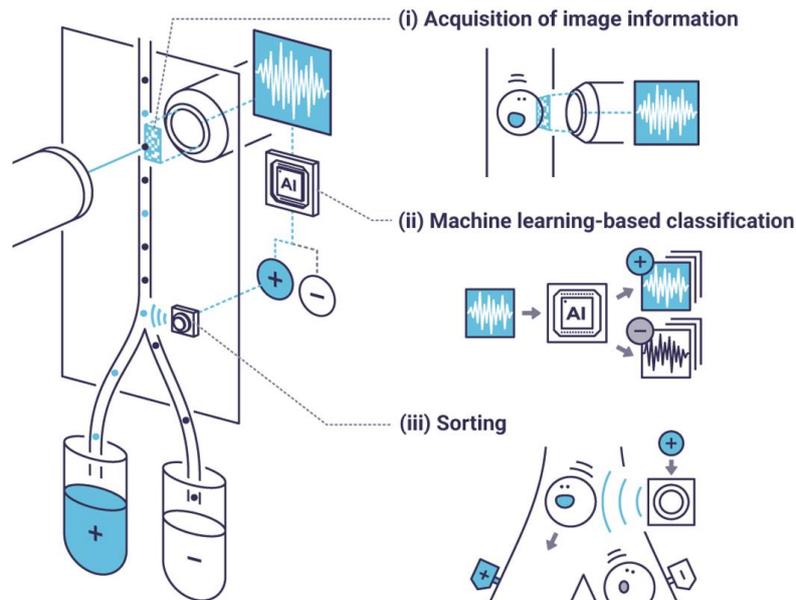
Company Profile

Name: ThinkCyte, Inc.
Location: 7-3-1 Hongo, Bunkyo-ku, Tokyo, Japan
Established: February 2, 2016
Paid-in capital: ¥100 million (as of April 30, 2021)
Lines of business: Research and development of drug discovery and diagnostic platforms using a proprietary AI-powered image-based high-throughput cell sorting technology
URL: <https://thinkcyte.com>

Terminology

1 Ghost Cytometry technology:

A new technique of flow cytometry, which combines high-speed imaging and AI-enabled analysis for the fast and accurate classification of cells based on their detailed morphological information. By applying machine learning methods directly to the compressively measured optical signals containing the detailed morphological information of cells, this method enables high-speed real time analysis in a flow. By further being combined with fluidic technologies, this technology enables fast, selective and precise sorting of cells.



< Schematic of the fast and accurate analysis, classification and sorting by Ghost Cytometry >

Source: Nature Biopharma Dealmakers, "ThinkCyte, Inc.: Machine vision-based cell sorting transforms cell therapy and drug discovery"

<https://www.nature.com/articles/d43747-021-00033-x>

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