Kyowa Pharmaceutical Industry and FRONTEO sign basic agreement on business alliance for dementia diagnosis support system using AI

TOKYO, March 2, 2020 -- FRONTEO, Inc. ("FRONTEO") (TSE: 2158), a leading provider of artificial intelligence ("AI") services and Kyowa Pharmaceutical Industry Co., Ltd. ("Kyowa Pharmaceutical") have entered into a basic agreement for a business alliance regarding a dementia diagnosis support system.

This dementia diagnosis support system is a ground-breaking system that utilizes Concept Encoder, FRONTEO's proprietary natural language processing AI engine, and is expected to determine the presence and severity of cognitive impairments based on a 5- to 10-minute conversation between a patient and a doctor. This system is the world's first system for diagnosing dementia using natural language, and we are aiming for its early practical use in medical practices.

The number of patients suffering from dementia in Japan is expected to reach 6.3 million by 2020[1], and approximately 1 in 7 elderly persons is said to suffer from some form of cognitive impairment[2]. At the same time, dementia is difficult to diagnose using only test results, and diagnosis requires specialized knowledge and experience. In Japan, which has a super-aging society, measures to deal with the annually increasing cases of dementia have become a national issue that must be resolved immediately.

In addition to requiring specialized knowledge and experience on the part of the diagnosing physician, the diagnosis of dementia also imposes a psychological burden on the patient being diagnosed. Furthermore, there are many issues with the current questionnaire-based diagnostic tools, such as concerns that patients learn how to respond during the diagnostic interview through repetition of interview content.

FRONTEO's system is innovative in that it can judge cognitive function from short, everyday conversations, and is expected to reduce the burden on both the diagnostician and the party undergoing diagnosis. Early detection of dementia and a shorter evaluation cycle are also expected.

Under this basic agreement with Kyowa Pharmaceutical, FRONTEO aims to strengthen the research, development, and sales structure of this system, and to obtain Japan's first regulatory approval for a diagnostic system for dementia utilizing natural language processing AI.
The impact of this alliance on FRONTEO's business performance from this fiscal year onward is insignificant.

About Concept Encoder   URL: https://lifescience.fronteo.com/

   Concept Encoder (conceptencoder®) is a natural language processing AI (artificial intelligence) system developed by FRONTEO specifically for use in the life sciences field. It was developed in 2018 with the aim of effective, evidence-based analysis and utilization of medical data containing large amounts of free-entry text data. Concept Encoder is also capable of co-analysis with data other than text, and research efforts are underway to co-analyze numerical data such as gene expression information, vital data, and various other test values accumulated in the life sciences domain. Patent Registration Number: Patent No. 6346367

About Kyowa Pharmaceutical Industry Co., Ltd.   URL: http://www.kyowayakuhin.co.jp/

Kyowa Pharmaceutical Industry Co., Ltd. ("Kyowa Pharmaceutical") was founded in 1954 and expanded its business centered on the CNS (central nervous system) domain, focusing on "AMEL" brand generic drugs. In 2016, Kyowa Pharmaceutical received the transfer of long-term listed products from Shionogi & Co., Ltd., and new drugs for the treatment of depression with bipolar disorder were commissioned by Astellas Pharma in 2017. In addition, Kyowa Pharmaceutical is promoting further development in the CNS domain through the comprehensive provision of long-term listed products and new drugs in addition to generic drugs.

In September 2019, to concentrate management resources in Kyowa Pharmaceutical, the shares and management rights of Kyowa Criticare Co., Ltd., a wholly-owned subsidiary specializing in injectables acquired in 2011, were transferred. Furthermore, in December 2019, Kyowa Pharmaceutical became independent from the global pharmaceutical company Lupin Group through a transfer of shares via an LBO (leveraged buyout) to the private equity fund Unison Capital Partners, which has strengths in the healthcare field.

Focusing on the CNS field, Kyowa Pharmaceutical has set "Aiming to be a CNS total solution company" as its new management vision and aims to take on various challenges to provide products and services to become a company that can contribute to the welfare of patients, their families, healthcare professionals, and society by providing products and services that go beyond pharmaceuticals.

Sales as of March of 2019 were 28.2 billion yen.

About FRONTEO, Inc.   URL: https://www.fronteo.com/

   FRONTEO, Inc. is a data analysis company that supports information analysis with its proprietary natural language processing AI (artificial intelligence) engines "KIBIT ®" and "conceptencoder®." Established in August 2003 as a company to support e-discovery (electronic evidence discovery), which supports evidence preservation, investigation, and analysis of electronic data necessary for legal matters such as international lawsuits, as well as digital forensic investigations, FRONTEO has applied its proprietary technologies such as its data analysis platforms to assist in roughly 10,000 international litigation measures to date. The AI-related technologies cultivated in the legal business have also been expanded to areas such as life sciences and business intelligence, and have achieved results in drug discovery research support, diagnostic support, and work style reforms. Listed on TSE Mothers on June 26, 2007. Capital of 2,559,206,000 yen (as of March 31, 2019).