



FRONTEO Healthcare Highly rated for Project Commissioned by the Japan Agency for Medical Research and Development (AMED)

TOKYO, July 11, 2019 – FRONTEO Healthcare, Inc., a subsidiary of FRONTEO, Inc. ("FRONTEO") (NASDAQ: FTEO) (TSE: 2518) that provides information analysis solutions utilizing artificial intelligence (AI) for healthcare and nursing care, announced today that it received a high rating on a research and development project commissioned by the Japan Agency for Medical Research and Development (AMED), which it has been developing along with Taishiro Kishimoto, Associate Professor of Psychiatry, Keio University School of Medicine.

AMED selected FRONTEO Healthcare in 2015 for "Research and Development Project Concerning Medical Equipment and Systems to Realize Future Medical Care: ICT-Based Diagnosis Assisting Technology Research and Development Project". FRONTEO Healthcare was selected to develop devices that provide an objective assessment of psychological symptoms in real time based on the quantification of facial expressions, voices, and everyday activities. Following four years of R&D, the results were reported to AMED, the assessment committee of which announced that the project had received an overall score of 8.0 out of 10 (excellent).

The assessment committee stated that the project earned a high score due to "tackling a challenging issue that is important for society but difficult to evaluate objectively and achieving significant results." The committee also praised the project for "collecting high-quality clinical data that surpassed expectations" and remarked, "We expect it will be possible to pursue further development by making appropriate adjustments to the plan and to commercialize the development of devices in the future."

As part of AMED's project, FRONTEO Healthcare's technology was primarily involved in the development of a Dementia Diagnosis Support System aimed at increasing the probability of early detection of dementia. This system reads transcriptions of 5 to 10minute-conversations between a healthcare professional such as a physician, and an elderly at risk of dementia. It then analyzes the text data using FRONTEO Healthcare's proprietary AI engine Concept Encoder and indicates the likelihood of dementia based on the results.

At present, the proportion of elderly dementia patients in the general population in Japan is on the rise. The proportion of the population aged 65 or older with dementia or MCI (mild cognitive impairment) is 28%, representing around 8.62 million people*, and the rate is growing each year. When dealing with dementia, it is essential to detect reduced cognitive functioning at an early stage and start providing appropriate treatment and support in order to improve patients' symptoms and quality of life.

Medical institutions currently screen patients by using a set of questions designed to diagnose dementia called the MMSE (Mini-Mental State Examination), and evaluate patients based on



their score. The Dementia Diagnosis Support System, on the other hand, provides a score range classification and probability based on the MMSE's criteria and indicates two levels of dementia probability: high and low. During R&D for this project, data-sets were collected from interviews with hundreds of healthy individuals and elderly people with dementia. A certain number of these were used as training data, while the remaining data was used to validate whether it was possible for the system to differentiate healthy people from those with dementia. Through the validation processes, the Dementia Diagnosis Support System generated results that were evaluated as "good" on a reproducibility index.

Prior to the project assessment, in the fall of 2018, Keio University and FRONTEO Healthcare consulted the Pharmaceuticals and Medical Devices Agency (PMDA) on developing the system. The PMDA agreed that it was appropriate to pursue development of this system as a medical device that would contribute to dementia screening.

Performing traditional screening using the MMSE requires training for physicians and other healthcare professionals. The MMSE also carries a risk of a learning effect when multiple screenings are conducted with the same patient. In comparison, the Dementia Diagnosis Support System is easy to use and to facilitate multiple screenings of the same patient. The system is therefore expected to support early detection of dementia.

Together with Keio University, FRONTEO Healthcare will continue to develop the Dementia Diagnosis Support System. We aim for commercialization and practical implementation of the system at medical institutions by proceeding to the clinical trial stage.

*Source: Ministry of Health, Labour and Welfare, "On the Current State of Dementia Measures: 115th Benefit Expense Subcommittee Meeting Reference Document 1" (November 19, 2014)

About Concept Encoder URL: https://www.fronteo-healthcare.com/conceptencoder

Concept Encoder is the AI system developed by FRONTEO Healthcare specifically for the healthcare industry. The system was developed with the aim of effective, evidence-based analysis and utilization of healthcare-related big data, including large bodies of free-entry text data. The system incorporates significance tests and other crucial statistical methods for evidence-based medicine (EBM), the gold standard of practice among healthcare professionals, and applies this to natural language analysis. The Concept Encoder can also co-analyze non-textual data, and a research effort is underway to co-analyze the numerical data accumulated within the healthcare domain, such as genetic expression, vital data, and other test result values prevalent in the healthcare domain. Patent Number: 6346367

Overview of FRONTEO Healthcare, Inc.

Name: FRONTEO Healthcare, Inc. Date of foundation: April 16, 2015 Capital amount: JPY 327,000 thousand

Representative: Kuniko Nishikawa, Chief Executive Officer

Area of business: Diagnosis support, healthcare operational support, pharmaceutical industry

support, and other healthcare-related information analysis businesses

URL: https://www.fronteo-healthcare.com/en/



About FRONTEO, Inc.

FRONTEO, Inc. ("FRONTEO") (NASDAQ: FTEO) (TSE: 2158) supports the analysis of big data based on behavior informatics by utilizing its technology, "KIBIT". FRONTEO's KIBIT technology is driven by FRONTEO artificial intelligence based on knowledge acquired through its litigation support services. KIBIT incorporates experts' tacit knowledge, including their experiences and intuitions, and utilizes that knowledge for big data analysis. FRONTEO continues to expand its business operations by applying KIBIT to new fields such as healthcare and marketing. FRONTEO was founded in 2003 as a provider of e-discovery and international litigation support services. These services include the preservation, investigation and analysis of evidence materials contained in electronic data, and computer forensic investigation. FRONTEO provides e-discovery and litigation support by making full use of its data analysis platform, "Lit i View", and its Predictive Coding technology adapted to Asian languages. The company name was changed from UBIC, Inc. to FRONTEO, Inc. as of July 1, 2016.

For more information about FRONTEO, contact <u>global pr@fronteo.com</u> or visit <u>http://www.fronteo.com/global/.</u>

Safe Harbor Statement

This announcement contains forward-looking statements. These forward-looking statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements can be identified by terminology such as "will," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates" and similar statements. Among other things, the amount of data that FRONTEO expects to manage this year and the potential uses for FRONTEO's new service in intellectual property-related litigation, contain forward-looking statements. FRONTEO may also make written or oral forward-looking statements in its reports filed with, or furnished to, the U.S. Securities and Exchange Commission, in its annual reports to shareholders, in press releases and other written materials and in oral statements made by its officers, directors or employees to third parties. Statements that are not historical facts, including statements about FRONTEO's beliefs and expectations, are forward-looking statements. Forward-looking statements involve inherent risks and uncertainties. A number of factors could cause actual results to differ materially from those contained in any forward-looking statement, including but not limited to the following: FRONTEO's goals and strategies; FRONTEO's expansion plans; the expected growth of the data center services market; expectations regarding demand for, and market acceptance of, FRONTEO's services; FRONTEO's expectations regarding keeping and strengthening its relationships with customers; FRONTEO's plans to invest in research and development to enhance its solution and service offerings; and general economic and business conditions in the regions where FRONTEO provides solutions and services. Further information regarding these and other risks is included in FRONTEO's reports filed with, or furnished to the Securities and Exchange Commission. FRONTEO does not undertake any obligation to update any forward-looking statement, except as required under applicable law. All information provided in this press release and in the attachments is as of the date of this press release, and FRONTEO undertakes no duty to update such information, except as required under applicable law.

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