





April 2, 2018

Press release

CMIC HOLDINGS Co., Ltd.

NEC Corporation

CMIC adopts NEC Voice Recognition Solution for Clinical Trial Support System

—Nationwide verification testing through iPhone App—

CMIC HOLDINGS Co., Ltd. (Head office: Minato-ku, Tokyo; Representative Director and CEO: Kazuo Nakamura; hereafter "CMIC") has adopted a voice recognition solution from NEC Corporation (Head office: Minato-ku, Tokyo; President and CEO: Takashi Niino; hereafter "NEC") for an iPhone App that assists in clinical trials. A pilot program for the App began in March 2018 using voice recognition technology from "NEC the WISE," (*) a portfolio of advanced Artificial Intelligence technologies from NEC, for data entry and task tracking that involves over 50 Clinical Research Coordinators (CRCs) as part of CMIC's Site Management Organization (SMO) program. From April 2018, the program will be expanded to include CRCs nationwide, to validate the quality and level of workflow improvements.

Clinical trials that are required for drug development, involve the entry of massive amounts of data, including a subject's height, weight, medicines taken, lab test results, etc. Until now, this data was input by hand, and was prone to typing errors and data omission. To prevent these errors, several CRCs and their supervisors had to review and check for errors, making their job extremely troublesome.

The voice assisted App, which has been co-developed by CMIC and NEC, is designed to reduce data entry errors or omissions. For example, the voice guidance system will prevent access to the next section until the current section has been completely filled out. In addition, for data values that are significantly different from others, a voice warning will be given to notify of the potential error.

Going forward, CMIC and NEC aim to utilize AI in order to analyze the data that has been compiled to improve the quality and efficiency of clinical trials. Furthermore, this data and the CRCs' know-how could be combined to detect potential side effects and adherence issues of prescription drugs, and remind patients and medical professionals of such events proactively.

Note 1:



"NEC the WISE" is a term for NEC's cutting-edge portfolio of AI technologies.

Press release:

NEC announces new AI technology brand, "NEC the WISE" http://jpn.nec.com/press/201607/20160719_01.html

NEC's AI Research - NEC the WISE -:

http://jpn.nec.com/ai/

[About CMIC HOLDINGS Co., Ltd.]

The CMIC Group started business in 1992 as the first CRO in Japan, and the company today provides comprehensive support services for the development, manufacturing, sales, and marketing of pharmaceutical products. Also, the company operates to respond to diversifying needs by managing the Healthcare Business sector and developing and selling diagnostic pharmaceuticals and orphan drugs. The CMIC Group has developed a unique business model called Pharmaceutical Value Creator (PVC) based on its abundant accumulated experience and knowledge as a CRO pioneer. CMIC utilizes the PVC to create new value in the healthcare field. For more information, visit the CMIC Group's website: www.cmicgroup.com/e

[About NEC Corporation]

NEC Corporation is a leader in the integration of IT and network technologies that benefit businesses and people around the world. By providing a combination of products and solutions that cross utilize the company's experience and global resources, NEC's advanced technologies meet the complex and ever-changing needs of its customers. NEC brings more than 100 years of expertise in technological innovation to empower people, businesses and society. For more information, visit NEC at http://www.nec.com

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