

MGH AND NEC START ON-SITE EVALUATION OF NEC CANCER DIAGNOSIS ASSISTANCE SYSTEM E-PATHOLOGIST AT MGH

Tokyo, Japan, October 22, 2009 - NEC Corporation (NEC; TSE: 6701) announced today it has started a joint evaluation of NEC's cancer diagnosis assistance system, e-Pathologist, at Massachusetts General Hospital (Headquarters: Boston, MA, USA; President: Peter L. Slavin, MD; MGH).

The e-Pathologist system uses "machine intelligence" to detect tissue and cell features and make quantitative measurements of key structures in digitized images of slides of tissue sections stained conventionally with Hematoxylin & Eosin (H&E) or subjected to immunohistochemistry reagents to assist pathologists in making decisions that may contribute to the clinical management of cancer.

With the advent of fast scanners that generate digital images of tissue slides, the workflow of the pathology laboratory can be enhanced in a cost effective manner by leveraging the advantages of digital images for both quantitative and semi-quantitative analyses. As the number of cases and resulting tissue samples requiring evaluation by pathologists increases, and the number of diagnostic tests deployed for grading and other tests for cancer grows, the use of digital pathology technologies, like the NEC e-Pathologist, become an important component of improved patient care.

NEC has been developing the e-Pathologist Cancer Diagnosis Assistance System since 2003 by adapting its advanced image analysis, recognition and machine learning technologies which were developed in NEC's Central Research Laboratory and its North American laboratory (NEC Laboratories America). In October 2008, MGH and NEC entered into a collaboration to adapt modules of e-Pathologist to meet clinical needs in the pathological diagnosis of breast and prostate cancers. Sample slides were used to teach the e-Pathologist modules to capture important image features linked to disease. The e-Pathologist modules being installed at MGH target breast tissues and perform (1) detection of ROI (Region Of Interest) based on features of potentially cancerous areas observed in H&E stained slide images, and (2) selection and counting of target cells used in ER, PR and Her-2 tests from specially stained slides.

MGH scientists, with help from NEC researchers and engineers, will evaluate e-Pathologist functions, and study an advanced pathology workflow in which the e-Pathologist system is expected to have an important role in overall diagnostic performances.

"MGH has long been a leader in medical innovations, and MGH Pathology has long been committed to utilizing imaging and data analysis for diagnosis and discovery. Digital pathology is obviously an important development in driving such innovation. We are pleased to start the evaluation of the NEC e-Pathologist system at our site," said Dr. David Louis, Chief of Pathology at MGH.

"NEC is proud of working with MGH as a partner in the realization of core tools for digital pathology," said Dr. Botaro Hirosaki, Senior Executive Vice President and Member of the Board, NEC. "The integration of MGH's pathology and medical imaging know-how with NEC's computer science and IT capabilities will make important innovations to the pathology information field possible."

MGH and NEC will also work together to adapt e-Pathologist for analyzing prostate tissues. After on-site evaluation, NEC will continue to prepare the e-Pathologist system for use in the clinic.

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NEC Press Contacts (Japan):
Chris Shimizu
NEC Corporation
+81-3-3798-6511
E-Mail: yc-shimizu@cb.jp.nec.com