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Canon starts clinical research with Hiroshima University in Japan on photon-counting computed tomography

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Photon-counting computed tomography is expected to become the next generation of X-ray CT



Japan-headquartered Canon Medical Systems Corporation and Hiroshima University have begun clinical research, using a Canon photon-counting computed tomography (PCCT) system (the company's third such system worldwide) with the aim of rapidly advancing its practical application. PCCT is expected to become the next generation of X-ray CT.

In this research, the scientists are exploring the clinical usefulness of data captured by PCCT, evaluating, and optimising various kinds of diagnostic information provided by PCCT, and determining imaging protocols, in order to maximise the functionality of PCCT from a basic level to clinical applications.

To achieve this goal, the team is promoting a wide range of research. Hiroshima University and Canon Medical have already conducted joint research projects with Professor Kazuo Awai of the Department of Diagnostic Radiology at Hiroshima University Graduate School of Biomedical and Health Sciences, on the development of advanced diagnostic imaging technologies, including image reconstruction technology that utilises deep learning technology. Through this latest clinical research, the aim is to take another step forward towards the practical application of PCCT.

The firm will accelerate development of PCCT by feeding back the results of this clinical research into improvement of the system. Through the early implementation of PCCT, which brings together various technologies cultivated by Canon over the years, Canon Medical will aim for the No. 1 share in the global CT market and contribute to the further development of diagnostic imaging technology.