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Hitachi collaborates with CLB to fight cancer using AI

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Established a new research laboratory called Hitachi Lyon Lab on the CLB site



Tokyo headquartered Hitachi, Ltd. and Centre Leon Berard (CLB), a leading French Comprehensive Cancer Center in Lyon-France, have announced that they have entered into an agreement to jointly promote research and development aimed at improving the efficiency of diagnosis and treatment of cancer and established a new research laboratory called Hitachi Lyon Lab on the CLB site, starting November 5th.

In this collaboration, Hitachi and CLB will conduct research and development of novel technologies to detect and diagnose cancers exploiting medical images such as CT/MRI using artificial intelligence (AI) and to predict response to radiation therapy using tumor genomic and transcriptomic data.

According to statistics from the Organization for Economic Co-operation and Development (OECD), Japan has the largest number of CTs and MRIs per million people. With the improvements of diagnostic imaging equipment, the number of images read by radiologists is increasing, and technologies that reduce the burden on radiologists using artificial intelligence are being actively developed. In addition, as a result of dramatic progress in gene analysis technology in recent years, it has become possible to analyze individual genome information at low cost, and personalized medicine that provides medical care suitable for each individual has been a key concern mainly in developed countries.

Hitachi provides solutions that improve the quality and efficiency of medical care, from diagnostic/clinical fields such as diagnostic imaging equipment and particle therapy systems to informatics fields such as IT and AI. In addition, Hitachi has been contributing to maintaining and improving people's quality of life by delivering particle therapy systems to a number of world-renowned hospitals, where more than 60,000 people have been treated with Hitachi's systems so far.

CLB is a Comprehensive Cancer Center in Lyon - Auvergne-Rhone-Alpes region, France, whose missions are care, research and education. It is affiliated to UNICANCER, the French Comprehensive Cancer Centers federation, counting twenty other cancer centers. CLB provides state-of-the-art diagnosis and treatment for cancer patients such as innovative therapies and radiation therapy. Images, as well as molecular data from tumors, are collected and stored over time for research purpose, upon consent from patients.

Hitachi and CLB will conduct joint research at Hitachi Lyon Lab to improve the efficiency of diagnosis and treatment of cancer, by combining CLB's clinical expertise and patient data related to cancer treatment with Hitachi's know-how in diagnostic imaging and IT/AI. Specifically, they will jointly develop diagnostic imaging technologies to detect potential cancer sites and

assist radiologists' diagnosis from image data such as CT and MRI using AI. Identification of biomarkers exploiting genomic data in the context of resistance will allow predicting responses and prognoses upon radiation treatment.

Hitachi will continue to accelerate global R&D with advanced medical institutions and universities in the healthcare field and will work with partners in joint research to create new value and contribute to improving the quality and efficiency of care.