

# News Release

FOR IMMEDIATE RELEASE

## Hitachi's Heavy Ion Beam Therapy System Starts Treatment at Osaka Heavy Ion Therapy Center



Osaka Heavy Ion Therapy Center



Treatment Room

**Tokyo, October 16, 2018** --- Hitachi, Ltd. (TSE: 6501, "Hitachi") announced today that its heavy ion beam therapy system\*<sup>1</sup> has started treatment at Osaka Heavy Ion Therapy Center as of October 16. This marks the first operation of Hitachi's first heavy ion therapy system.

The system, consisting of two treatment rooms with vertical and horizontal ports and one treatment room with horizontal and oblique ports, is equipped with scanning technology for treating certain forms of cancer and will have the feature of real-time image gating for tracking movement of organs during respiration\*<sup>2</sup>. Hitachi has also delivered particle therapy treatment planning will utilize imaging data and calculate the appropriate dose to prepare the most suitable, patient-specific treatment plans\*<sup>3</sup>.

Osaka Heavy Ion Therapy Center, located in the heart of Osaka city with easy access and a view of Osaka Castle, has adopted a universal design concept in accordance with basic principles of safety and comfort and aims to deliver more pleasant cancer treatments to patients. The patient and medical staff friendly system and spatial design have been highly acclaimed, resulting in the winning of 2018 Good Design Award sponsored by the Japan Institute of Design Promotion, a public interest incorporated foundation.

Hitachi has been proactively promoting the particle therapy business worldwide, supplying world-class facilities with its highly reliable and proven particle therapy systems that have treated more than 16,000 patients. Hitachi integrated Mitsubishi

Electric Corporation's particle therapy system business in June 2018 into its own business unit. Hitachi will utilize the technology with their experience in particle therapy system and contribute in providing cutting edge radiation therapy. Under the new structure, Hitachi will provide products and services with higher performance and added value, including a Single Room Solution and a Hybrid System combined with the capabilities of proton and carbon therapy.

As Hitachi expands its healthcare business, it will continue to accelerate the globalization of its particle therapy system business and contribute to cancer treatment around the world.

### **Overview of Particle Therapy**

Particle Therapy is an advanced type of cancer radiotherapy. Protons extracted from hydrogen atoms, or carbon ions are accelerated up to 70% of the speed of light. This energy is concentrated directly on the tumor while minimizing radiation dose to surrounding healthy tissue. Particle therapy improves the quality of life for cancer patients since the patient experiences no pain during treatment and the procedure has very few side effects compared to that of traditional radiotherapy. In most cases, patients can continue with their normal daily activities while undergoing treatment. The use of particle therapy is expected to increase.

#### Notes

- \*1 The system obtained manufacturing and marketing approval in accordance with Pharmaceutical and Medical Device Act on September 25, 2018.
- \*2 Real-time image gating is the technology collaboratively developed between Hokkaido University and Hitachi, supported by Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST) of Japan Society for the Promotion of Science.
- \*3 The system obtained manufacturing and marketing approval in accordance with Pharmaceutical and Medical Device Act on October 10, 2018.

**About Hitachi, Ltd.**

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges, combining its operational technology, information technology, and products/systems. The company's consolidated revenues for fiscal 2017 (ended March 31, 2018) totaled 9,368.6 billion yen (\$88.4 billion). The Hitachi Group is an innovation partner for the IoT era, and it has approximately 307,000 employees worldwide. Through collaborative creation with customers, Hitachi is deploying Social Innovation Business using digital technologies in a broad range of sectors, including Power/Energy, Industry/Distribution/Water, Urban Development, and Finance/Social Infrastructure/Healthcare. For more information on Hitachi, please visit the company's website at <http://www.hitachi.com>.

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