

## Hitachi takes advanced Proton Therapy to the US

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**First Hitachi system in the US with Real-time Gated Proton Therapy capability, which allows real-time beam irradiation to the tumour while compensating for movement associated with respiration**



Opening ceremony

Japan headquartered Hitachi, Ltd., has announced that it has provided its advanced proton therapy system to Sibley Memorial Hospital (Washington DC, US), a member of Johns Hopkins Medicine (Maryland, US), and it has started treatment on 25 October 2019. On 28 October, an opening ceremony at Sibley Memorial Hospital was held.

The proton therapy system installed at Sibley includes spot scanning technology that sends a therapeutic proton beam precisely conforming to the shape of the target tumour. It has three rotating gantry treatment rooms and one fixed beam research room. This is the first Hitachi system in the US with Real-time Gated Proton Therapy capability, which allows real-time beam irradiation to the tumour while compensating for movement associated with respiration.

Johns Hopkins Medicine, based in Baltimore, Maryland, US, is a world-class hospital focusing on medical research and clinical care. Johns Hopkins Hospital has maintained its position as one of the top hospitals in U.S. News & World Report rankings for decades. Sibley Memorial Hospital, an affiliate of Johns Hopkins Medicine, provides cancer care from the world-renowned Johns Hopkins

Sidney Kimmel Comprehensive Cancer

Center which also has one of the most successful cancer research programs in the world.

Hitachi has been proactively promoting particle therapy system business worldwide, supplying world-class facilities with its highly reliable and proven particle therapy systems, which have treated more than 60,000 patients. Hitachi will provide system and services, including single room solution in realizing installation in urban limited areas and hybrid system combined with the capability of generating both proton and heavy-ion in one accelerator, to meet all customer needs.

Hitachi will continue to accelerate the globalization of its particle therapy system business and contribute to cancer treatment

around the world.

\* U.S. News & World Report releases its Best Hospitals rankings in the country every year.

### 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 tumour 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.