Emory Proton Therapy Center

Partners:
Georgia Proton Treatment Center (GPTC), LLC, a non-profit organization, owns the building and the land. GPTC is owned by Provident Resources Group Inc.

Brasfield & Gorrie L.L.C. (B&G) is the general contractor for the center.

Signet Development is supervising and managing the planning, development and construction management for the project.

Emory Healthcare and Winship Cancer Institute will staff the facility when it opens with physicians and other medical professionals.

The facility: three stories and 108,000 square feet. Approximate cost: $200 million.

Equipment:
The facility will be equipped with proton therapy technology from Varian Medical Systems, Inc., including pencil beam scanning and intensity modulated proton therapy as well as a robotic positioning system, and a full suite of advanced imaging technology, including on-gantry Cone-Beam CT Volumetric imaging.

- **The cyclotron** weighs 90 tons and is the source of the proton beam line for the system. It is a compact particle accelerator that uses electromagnetic waves to accelerate particles.
- **The beam line**, almost 100 yards in length, travels through the facility and into the five treatment rooms.
- **The gantry**, weighing 240 tons, is the central structure that makes up a patient treatment room.

Opening date: patient consultations will begin in the third quarter of 2018, and the first patient treatments will begin in the fourth quarter of 2018.

Patient treatments:
The proton system will be capable of providing proton beam treatments to patients in five treatment rooms with annual patient throughput of approximately 1,755 patients.

Proton therapy:
Proton therapy is a highly-advanced form of radiation therapy that can provide cancer patients with an increased likelihood of superior clinical outcomes and fewer side effects or complications when compared to surgery, chemotherapy, and conventional radiation (photon/X-ray) therapy alternatives. Proton therapy uses accelerated particles (protons) to precisely treat cancerous tumors within the body. Proton therapy is more precise than conventional forms of radiation treatment, delivering an exact, high dose of radiation to a tumor site while sparing surrounding healthy tissue and organs from damage.
**Treating solid tumors:**

Proton therapy, performed on an outpatient basis, is often used for patients with cancers that are localized and have not spread to distant areas of the body. Proton therapy is frequently used in the care of children diagnosed with cancer, as well as in adults who have well-defined tumors in organs within the respiratory system, prostate gland, digestive system, central nervous system, or head, neck, and throat area.

**Benefits of proton therapy treatment:**

- Most precise form of radiation treatment available today. Can destroy primary tumor while leaving surrounding healthy tissue and organs intact and unharmed.
- Avoids many of the usual side effects of standard x-ray radiation.
- Protons can be used in conjunction with other cancer treatment modalities such as chemotherapy and surgery.
- Highly preferred radiation treatment modality option for children with cancer because children are susceptible to injury from standard x-ray radiation as their tissues and organs are growing rapidly.

**Proton treatment centers around the world:**

There are approximately 25 treatment centers in the U.S. and approximately 60 centers total worldwide. Currently, there are several other centers under development in the U.S. and the world.