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ProNova Solutions Announces Details on Next-Generation Proton Therapy System

Advanced Superconducting Magnets and Other Technologies Cut Costs and Reduce Start-up Time by More Than Half Compared to Current Systems

KNOXVILLE, Tenn.--(BUSINESS WIRE)--The team that broke the price and performance barrier with PET and PET/CT systems in the 1990s and 2000s is working with a group of leading companies and universities to produce a dramatically less expensive, smaller, lighter, more flexible and more capable [proton therapy](#) system.

Called the [ProNova SC360](#), the first systems will ship in 2015.

The team at ProNova includes [Terry Douglass, Ph.D.](#) and others who played an integral role in the development and commercialization of positron emission tomography (PET) while at CTI Molecular Imaging, Inc. CTI specialized in the development, production and distribution of products and services for diagnostic imaging from 1983 to 2005, at which time the company was acquired by Siemens Medical Systems. Due to the innovations in cost and capability made possible by CTI, more cancers are diagnosed and treated earlier, leading to better clinical outcomes.

The ProNova team is now on schedule to do the same for proton therapy. Leveraging technology, manufacturing, operations and marketing resources across the team, ProNova will deliver a next-generation proton therapy system that is dramatically less expensive, more clinically flexible and more capable than any system currently planned for delivery in a similar timeframe.

ProNova Solutions promotes the SC360 as a “no compromise” solution. The company uses this term to point out that rather than reducing capabilities and clinical flexibility in return for its reduced size and cost, the SC360 offers new capabilities not available in current-generation proton therapy systems. Such features include 3D anatomical and functional imaging at the isocenter, 360-degree treatment of the patient, and an efficient workflow that mimics traditional radiation therapy.

Selected partners on the ProNova development, manufacturing and marketing team include:

[Indiana University \(IU\)](#) — IU will provide technology for compact scanning magnet technology and rapid switching beam-line technology. IU Health operates one of the first proton therapy centers in the nation, and IU Cyclotron Operations developed the advanced proton nozzle technology that is licensed under the ProNova arrangement with IU.

[ProCure Treatment Centers](#) — The largest and most experienced operator of proton therapy centers in the U.S. will provide engineering, industry relationships and intellectual property around superconducting magnet technology.

[Provision Center for Proton Therapy \(PCPT\)](#) — PCPT is a two-phase proton therapy treatment facility in Knoxville, Tenn. scheduled to open in 2014. Phase I is a three-room proton center utilizing current IBA conventional warm magnet technology. Phase II is a two-room expansion utilizing the ProNova SC360.

[Cryomagnetics](#) — Cryomagnetics will provide engineering and manufacturing capabilities for the superconducting magnets used in the cyclotron and gantry assemblies.

The SC360 will offer dramatic improvements over conventional proton therapy technologies as well as additional capabilities not available in competing next-generation proton therapy systems under development. Compared with current proton therapy systems, the SC360 will be less than half the cost, one tenth the weight and require less than half the time to implement.

Advanced capabilities of the SC360 include:

- A 360-degree treatment angle that allows patients to remain in one position during treatment.
- 3D anatomical and functional imaging at the isocenter, which provides the most advanced image-guided proton therapy capabilities, including both CT and PET.
- Advanced beam scanning, including pencil beam scanning and uniform beam scanning.
- Factory pre-assembled and tested to reduce construction and shipping costs while compressing time-to-startup.
- A workflow that mimics that of traditional radiation therapy.
- The flexibility of solutions with one, two or three treatment rooms.

The size, cost and capabilities of the SC360 make it the smallest, most economical and most operationally flexible unit in the pipeline today.

“This is a no-compromise solution,” said Douglass, chairman of ProNova Solutions. “It delivers not only reduced cost and compelling economics, but greater clinical capabilities than other proton therapy system suppliers. Our team has delivered more than 200 cyclotrons and 2,000 PET/CT scanner solutions at price points that transformed those markets. Our team, with our partners, is committed to delivering the same outcome with the SC360.”

About ProNova Solutions, LLC

[ProNova Solutions](#) is aggressively developing the next generation of cancer therapy technology in a highly integrated proton therapy medical system. The fusion of state-of-the-art imaging, multi-axis precision positioning, superconducting magnet technology and unprecedented closed-loop treatment verification using PET gives ProNova customers an economic and clinical advantage. Learn more at pronovasolutions.com.

High-resolution images available in our [online media room](#).

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