



News Release
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Cyclotron for State's First Proton Center Arrives at UAMS

LITTLE ROCK — Completion of a \$65 million expanded University of Arkansas for Medical Sciences (UAMS) Radiation Oncology Center that will house Arkansas' first Proton Center marked an important milestone Oct. 20 with the arrival and installation of the Proton Center's cyclotron, a type of particle accelerator that serves as a key piece of equipment.

"UAMS is proud to partner with Arkansas Children's, Baptist Health and Proton International to bring this groundbreaking technology to Arkansas," said UAMS Chancellor Cam Patterson, M.D., MBA. "Arkansans will no longer need to travel out of state to receive this innovative treatment."

Under construction at 3900 W. Capitol Ave., the Proton Center of Arkansas will offer an advanced form of radiation treatment that uses precisely focused protons to target tumors, rather than photons used in standard X-ray radiation.

While both forms of radiation kill cancer cells, proton radiation is more effective in treating some cancers, particularly those in close vicinity of critical organs for which conventional radiation can be too toxic. Proton beams can be precisely conformed to target and release most of their energy directly into a tumor with minimal damages to surrounding healthy tissue. For patients, that means fewer and less severe side effects, faster recovery time and an overall better quality of life.

"The realization of proton therapy in Arkansas demonstrates our commitment to bringing the most advanced cancer treatments to Arkansas," said Michael Birrer, M.D., Ph.D., director of the UAMS Winthrop P. Rockefeller Cancer Institute and UAMS vice chancellor. "For patients with tumors that are difficult to treat with conventional radiation, proton therapy could be life changing."

Proton radiation is ideal for pediatric patients with certain cancers because it limits total radiation exposure to healthy, growing tissues. UAMS' Radiation Oncology Center is the only one in the state that treats children.

"This collaboration advances health care delivery and will provide Arkansas Children's pediatric cancer patients with proton therapy in their home state," said Marcy Doderer, FACHE, president and CEO of Arkansas Children's. "This is another exciting step toward state-of-the-art care close to home for the children of Arkansas."

Including UAMS, proton centers exist in only 41 locations in the United States.

The 55-ton cyclotron that powers the proton radiation beam made an eight-week cross country journey to Little Rock. The highly sophisticated apparatus, which includes the center's 75-ton gantry, departed Brussels, Belgium, Aug. 25 and was at sea for five weeks before making land at the Port of Houston on Sept. 26. The equipment is so massive that it required a police escort and a convoy of six semi-tractor trailers to transport safely to Little Rock. Installation is expected to take 10 months.

Construction began in May 2021. The Proton Center is expected to begin treating patients in September 2023.

"This is another example of how strategic collaboration with other leading health care providers can improve the health of Arkansans," said Troy Wells, president and CEO of Baptist Health. "We're happy to be bringing this therapy to the state, and this delivery of the cyclotron puts us one step closer to providing the best cancer care right here in Arkansas."

"The Proton International team is pleased to be working with such distinguished partners to bring proton therapy to the citizens of Arkansas and beyond. It is imperative that certain patients have access to this lifesaving technology close to home," said Chris Chandler, CEO of Proton International.

The Radiation Oncology Center, part of the UAMS Winthrop P. Rockefeller Cancer Institute, already offers cutting-edge technologies to provide the latest radiation treatments. It will continue to provide those services, as well as new ones using the expanded capabilities of three new linear accelerators, as it relocates in 2023 to a new 52,249 square-foot-building.

"With the addition of the cutting-edge proton therapy and most importantly, our compassionate and experienced clinical team, we will offer the most advanced and comprehensive care to our cancer patients in the state of Arkansas," said Fen Xia, M.D., Ph.D., the chair of the UAMS Department of Radiation Oncology.

The three new linear accelerators — machines that customize high-energy X-rays — provide edge radiosurgery, a specialized nonsurgical technique used to destroy tumors in the brain and spine with end-to-end accuracy of less than 1 millimeter; radiotherapy with motion management, which controls radiation directed at tumors that move as patients breathe; and adaptive therapy, the most advanced form of cancer treatment, which allows clinicians to adapt

to daily changes in the tumors' shape and position over the course of treatment to better target the cancer and spare normal tissues.

The first floor of the new building will include a consultation room, a computerized tomography (CT) room, treatment rooms, clinical rooms, an exam area, a staff lounge and a conference room, as well as several physician offices in the clinical space.

The proton machine will be housed on the second floor, as will a CT room to prepare patients for proton therapy, a high-dose radiation (HDR) room, gowning rooms, recovery rooms, an anesthesia room, work rooms, eight exam rooms, a large work room for physics staff and more physician offices.

The third floor will house a cooling room for the proton machine, as well as mechanical and storage areas. It will include some extra space for future needs. An enclosed heated and cooled skywalk will connect the building to UAMS' Parking Deck 3.

About Arkansas Children's

Arkansas Children's is the only healthcare system in the state solely dedicated to caring for Arkansas' more than 700,000 children. The private, non-profit organization includes two pediatric hospitals, a pediatric research institute and USDA nutrition center, a philanthropic foundation, a nursery alliance, statewide clinics, and many education and outreach programs — all focused on fulfilling a promise to define and deliver unprecedented child health. Arkansas Children's Hospital (ACH) is a 336-bed, Magnet-recognized facility in Little Rock operating the state's only Level I pediatric trauma center; the state's only burn center; the state's only Level IV neonatal intensive care unit; the state's only pediatric intensive care unit; the state's only pediatric surgery program with Level I verification from the American College of Surgeons (ACS); the state's only magnetoencephalography (MEG) system for neurosurgical planning and cutting-edge research; and the state's only nationally recognized pediatric transport program. Arkansas Children's Hospital is nationally ranked by U.S. News & World Report in seven pediatric specialties (2022—2023): Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Nephrology, Neurology & Neurosurgery, Pulmonology and Urology. Arkansas Children's Northwest (ACNW), the first and only pediatric hospital in the Northwest Arkansas region, is a level IV pediatric trauma center. ACNW operates a 24-bed inpatient unit; a surgical unit with five operating rooms; outpatient clinics offering over 20 subspecialties; diagnostic services; imaging capabilities; occupational therapy services; and Northwest Arkansas' only pediatric emergency department, equipped with 30 exam rooms. Generous philanthropic and volunteer engagement has sustained Arkansas Children's since it began as an orphanage in 1912, and today ensures the system can deliver on its promise of unprecedented child health. To learn more, visit archildren.org.

About Baptist Health

For more than 100 years, Baptist Health has delivered All Our Best in health care through Christian compassion and innovative services. Baptist Health is Arkansas' most comprehensive health care organization with more than 250 points of access that include 11 hospitals; urgent care centers; a senior living community; over 100 primary and specialty care clinics; a college with studies in nursing and allied health; a graduate residency program; and access to virtual care anytime, anywhere. It is also the largest private not-for-profit health care organization based in Arkansas, providing care through the support of approximately 11,000 employees, groundbreaking treatments, renowned physicians and community outreach programs. For more information about Baptist Health, visit baptist-health.com, call Baptist Health HealthLine at 1-888-BAPTIST or download the [myBaptistHealth app](#). Find us on [Facebook](#), [Twitter](#), [Instagram](#) and [YouTube](#).

About Proton International

Proton International, www.protonintl.com, has an experienced team dedicated to bringing proton therapy to patients. The company works with hospitals and physician groups to develop one- and two-room proton therapy

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facilities on a turnkey basis. The PI team has developed and operated multiple centers and is currently active on several projects.

Proton International completed proton centers at William Beaumont Hospital in Royal Oak, Michigan University Medical Center in Groningen, The Netherlands, University of Alabama Birmingham, and Delray Beach, Florida; where the centers are currently treating patients. The company has several additional centers under design and construction. PI's business model ensures that projects are completed on time, on budget, and within the scope and needs of the institution. Services include business planning, organizational structure, financing, building design and construction, installation and commissioning, equipment, staff training, and more.

About UAMS

UAMS is the state's only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; a hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS' clinical enterprise. UAMS is the only adult Level 1 trauma center in the state. UAMS has 3,047 students, 873 medical residents and fellows, and six dental residents. It is the state's largest public employer with more than 11,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children's, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamshealth.com. Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).

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