

courage
strength
hope

TEXAS CENTER FOR PROTON THERAPY

NEW PROTON THERAPY CENTER Targets Cancer with Power and Precision

NORTH TEXAS is now home to a facility housing the latest in proton beam technology staffed by a “dream team” of specialists dedicated to treating the whole patient, with quality of life a shared concern.

Continued on page 2



3 THE LATEST IN PROTON
BEAM TECHNOLOGY

4 PATIENT-CENTERED
THERAPY

5 PATIENTS SHARE THEIR
STORIES

6 A 'DREAM TEAM' OF
SPECIALISTS

D-FW PROTON CENTER TAKES AIM AT CANCER WITH ULTRA-PRECISE TECHNOLOGY, PIONEERING MEDICAL TEAM

**ADVANCED RADIATION TREATMENT NOW AVAILABLE
NEARBY TO NORTH TEXAS CANCER PATIENTS**

The recent opening of Texas Center for Proton Therapy heralded a new day for North Texas cancer patients, who now have a facility offering the latest in proton beam technology.

The center has quickly become a magnet for those seeking leading-edge treatments performed by a world-renowned staff in a setting that's not far from home.

The \$111 million, 63,000-square-foot Las Colinas facility began treating patients last November after opening three months ahead of schedule. Dallas-Fort Worth previously had been America's largest metropolitan area without a proton therapy center; the nearest facilities were in Houston or Oklahoma City.

The void was filled through the shared vision and partnership of Texas Oncology, The US Oncology Network, supported by McKesson Specialty Health, and Baylor Scott & White Health, which collaborated in April 2012 to build Texas Center for Proton Therapy, breaking ground in 2013.

"This has changed the area into a

Proton therapy delivers precisely targeted radiation to tumors that extends just past the tumors themselves, destroying cancer cells while minimizing damage to healthy surrounding tissue. The technology is especially useful for treating tumors in sensitive areas such as the brain, spine and heart, as well as for treating cancer in children, whose developing bodies are even more vulnerable to long-term side effects of radiation.

Fewer than 25 proton treatment centers currently operate nationwide, and the center is among the handful using pencil-beam scanning. This advanced technology ensures the highest precision by using a proton beam of pencil-point sharpness to "paint" radiation on tumors layer by layer in three dimensions.

"With an estimated 20 million cancer survivors predicted going forward over the next decade, we as oncologists need to be mindful about what their quality of life will look like when they're done with treatment," said Texas Center for Proton Therapy Medical Director Dr. Andrew Lee, the first doctor to perform pencil-beam scanning treatment in North America. "We're trying to accomplish that through many avenues, but proton therapy is part of that. It's important for us to not only



Texas Center for Proton Therapy Medical Director Dr. Andrew Lee

relaxed environment. Patient support services are offered to help patients with non-medical issues such as lodging and personal services.

"The building's design was carefully considered to promote patient comfort and convenience as well as clinical efficiency," Barlow said. "When patients call us, they've most likely had a cancer diagnosis within the last 48 hours and are possibly scared and anxious about how their disease will affect their survival and their family, job and home life. They get a human being on the phone who's knowledgeable about proton therapy, and if they're a candidate, we get them in to see our physicians very quickly. That level of personal service is part of our mission every day."

Lee agrees. "We fully understand that more is happening to cancer patients than just their tumor," he said. "If we can make their experience smoother and more convenient as they're going through treatment, I think that's as important as the technical components of the care we're providing."

The philosophy has garnered kudos from patients, families and the community.

"We've received only a positive response from patients thrilled to have access to this advanced technology as well as the physicians referring these patients, particularly the pediatric oncologists who now have that at their fingertips," Barlow said. "Many physicians now involve us in their weekly patient management conferences so we can touch the lives that would best benefit from this therapy."

The center's convenient location also means patients are close to robust research and clinical trials likely to reinforce proton therapy's value as well as shape future improvements in the technology. Texas Center for Proton Therapy clinicians are creating a registry to track patient treatment and outcomes, said Dr. Steve Paulson, president and chairman of Texas Oncology.

"We'll also collaborate with other proton centers in cooperative studies to assess the best way to treat various malignancies," Paulson said. "These steps will substantially improve our knowledge about what's most effective."

William "Bill" Solomon became one of the center's first patients despite living near a proton treatment facility closer

to his home in Tulsa, Okla. After being diagnosed with prostate cancer a year ago, Solomon sought out the most advanced therapy he could find in hopes of dodging side effects, such as incontinence and erectile dysfunction that can follow prostate removal surgery or other treatment options.

"I wanted the best technology available, which is in Dallas, and the best team and best doctor, and that was in Dallas," said the 57-year-old father of five, a businessman who worked remotely during his eight-week proton regimen, staying in Dallas with his college-age daughter.

"Anyone who walks in the doors knows these are the experts of the experts," Solomon said. "You know you're going to get that personal treatment, and that's what each person there portrayed to me. They've put together such a fine group and a wonderful center; it's hard not to come away with a positive take."

"It's important for us to not only get our patients well but to offer a better definition of what 'well' looks like."
— Dr. Andrew Lee



Texas Center for Proton Therapy's "Hope" treatment room includes an isocentric gantry, which rotates the proton beam angle 360 degrees around the patient.

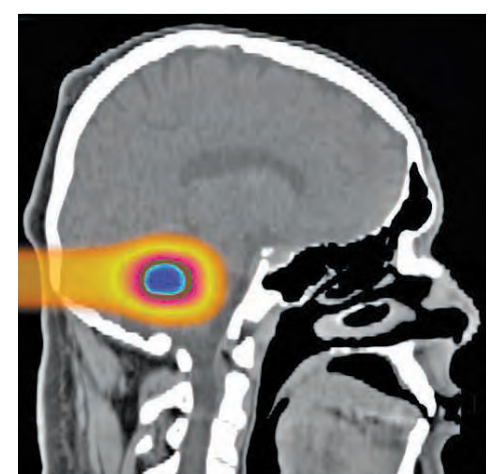
medical destination," Texas Center for Proton Therapy Director Gary Barlow said. "The 6.8 million people in the Dallas-Fort Worth metroplex previously had to travel either four hours north or south to seek this innovative technology. Now, they don't have to leave their homes, families, friends, jobs, school and pets to move for a six- to eight-week course of treatment. This has changed the health care landscape dramatically."

get our patients well, but to offer a better definition of what 'well' looks like."

Lee, who launched proton treatment at The University of Texas MD Anderson Cancer Center in Houston almost 10 years ago, is joined at the center by some of the top talent in the field of proton therapy. The center's staff boasts more than 75 years of combined experience in proton therapy, and its four physicians are the only proton therapy specialists in North Texas. At capacity, Texas Center for Proton Therapy will employ approximately 60 people and treat an estimated 100 patients per day.

Accommodating patients' varied schedules and needs is just one of the ways the proton center achieves its mandate of patient-centered care. Texas Center for Proton Therapy also hosts weekly meetings to educate and encourage fellowship among patients as well as staff in a more

1 FAST FACT:
The center is designed to promote patient and caregiver comfort and facilitate clinical efficiency.



In this image of focal pencil-beam treatment of a brain tumor, the tumor is completely covered in the high-dose region (blue) and the rest of the normal brain is spared.



GARY BARLOW
CENTER DIRECTOR



CHANG CHANG, PH.D.
DIRECTOR OF PHYSICS



DR. DANIEL HAMSTRA
RADIATION ONCOLOGIST



DR. ANDREW LEE
MEDICAL DIRECTOR



DR. VICTOR MANGONA
RADIATION ONCOLOGIST



KRISTIN MORRIS
CLINICAL DIRECTOR
OF TECHNICAL SERVICES



DR. JARED STURGEON
RADIATION ONCOLOGIST



A TECHNOLOGY TOUR DE FORCE

TEXAS CENTER FOR PROTON THERAPY TOPS THE FIELD WITH A FACILITY BUILT AND EQUIPPED FOR THE LATEST IN TREATMENT OPTIONS

The tiny powerful beams fired inside treatment rooms tell only part of the story at Texas Center for Proton Therapy.

For those beams to do their work, a vast facility had to be built to house the leading-edge equipment needed to provide the latest in advanced radiation care.

What patients see around them represents just a fraction of the stunning technology encompassed by the center. Half the length of a football field away from patient areas lies a room hidden within 12-foot-thick concrete walls. Inside is a 220-ton particle accelerator called a cyclotron, which accelerates tumor-destroying beams by whisking protons to treatment rooms through a beamline at two-thirds the speed of light.

The technology extends even further than that. Two of the center's treatment rooms contain a three-story-tall machine called a gantry. Gantries are able to fire proton beams from any angle necessary to destroy tumors in patients without harming surrounding healthy tissue.

Each proton beam is essentially "painted" on tumors layer by layer through a technology known as pencil-beam scanning. The technology was pioneered in North America by Dr. Andrew Lee, medical director at Texas Center for Proton Therapy.

Pencil-beam scanning technology is used in conjunction with on-board cone-beam CT image guidance, which allows meticulous treatment delivery. The combined technologies place Texas Center for Proton Therapy in the forefront of proton therapy centers in the U.S. Only a few offer such advanced care, and Texas Center for Proton Therapy is the only one of those facilities in Texas. At 63,000 square feet, the facility is also the largest proton center in Texas and the surrounding states offering multiple pencil-beam scanning treatment rooms.

"Proton technology itself is amazing, and our equipment is the latest-generation, which, compared to other centers, whose equipment is nearly a decade old, has the ability to deliver treatment that's even more precise," said Kristin Morris, MHA, BSRT (R)(T), the center's clinical director of technical services. "Everything is customized to each patient, so it's not one-size-fits-all because everyone's cancer is specific to them. It's a tremendous amount of teamwork and collaboration to plan and deliver the treatment."

Proton treatment sessions typically take 15 to 40 minutes, with each noninvasive beam delivered for one to three minutes. Depending on the tumor, treatment regimens continue for one to 45 sessions, lasting anywhere from one day to nine weeks.

2 FAST FACT:
The center brings proton therapy to the 6.5 million residents of Dallas-Fort Worth, previously the largest metropolitan area without a proton therapy center.

Proton therapy's precision, with beams as small as 2.5 millimeters wide, is especially valuable for attacking tumors in sensitive areas, including the brain, spine, chest, prostate, head and neck. The therapy has been a breakthrough in treating tumors in children, whose brains and bodies are still growing and developing.

"Using pencil-beam scanning means we can make the radiation dose conform to the shape of a tumor much better than first-generation proton technology, which essentially sprays a large field of protons into the patient," said Chang Chang, Ph.D., Texas Center for Proton Therapy's director of physics. "That's still better than conventional X-ray radiation, but with our next-generation technology we have much better control over radiation delivery. For adult patients, this means fewer side effects and a better quality of life. For pediatric patients, this means fewer short- and long-term side effects and a lower risk of secondary cancer years down the road, so it is of critical importance."



Protons generated by a cyclotron travel down a beamline at almost the speed of light.

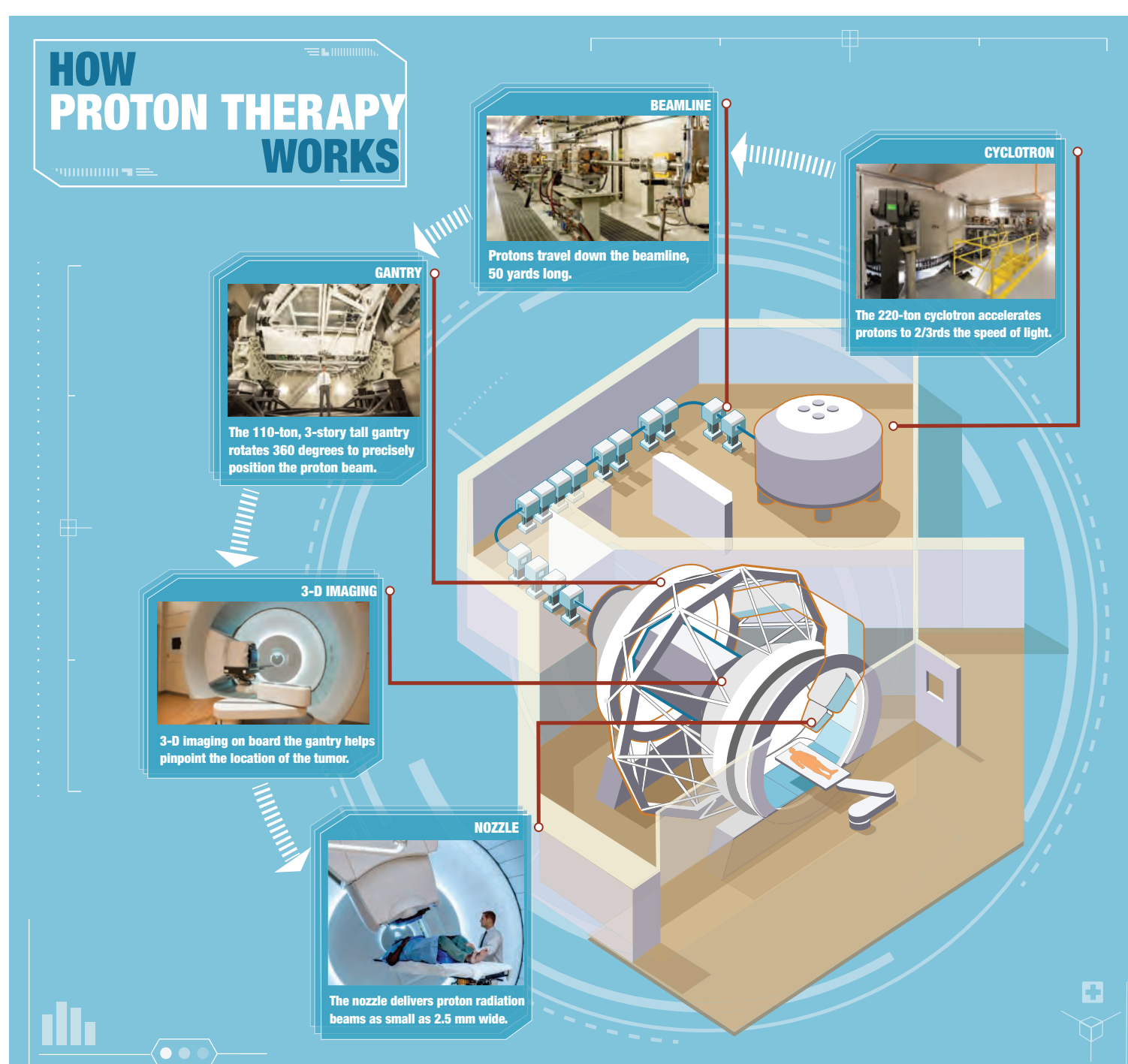
Texas Center for Proton Therapy's cone-beam CT image guidance system offers clinicians a 3-D view of a patient's anatomy for a tailored approach. Many hours are dedicated to each patient's treatment plan, with intense collaboration among the center's physicists, dosimetrists (who calculate radiation doses) and radiation oncologists to interpret imaging scans and program the proton beam equipment to deliver the optimal dose to each tumor, even if irregularly shaped.

Texas Center for Proton Therapy's array of technology also includes a comprehensive panel of imaging devices such as PET/CT and MRI scanning, which aid thorough diagnosis and help monitor progress during and after treatment.

"The disease can run, but it can't hide," said Gary Barlow, Texas Center for Proton Therapy's director. "If we can find it, we can find its shape, and proton therapy can treat the disease with precision and accuracy. Each patient is different, so it all begins with imaging and requires hours and hours of careful planning by our highly trained team to provide customized treatment."



The 220-ton cyclotron accelerates protons and sends them down the beamline.





TEXAS CENTER FOR PROTON THERAPY

PUTTING PATIENTS FIRST

TEXAS CENTER FOR PROTON THERAPY GOES BEYOND THE TREATMENT OF DISEASE, PROVIDING PERSONALIZED CARE COUPLED WITH SPECIAL SERVICES AND AMENITIES

Treating the whole patient, not just the disease, is the goal of Texas Center for Proton Therapy.

"It's easy to feel dehumanized when you have cancer," said Dr. Andrew Lee, medical director at Texas Center for Proton Therapy. With years of oncology experience, Lee has seen how cancer can reduce patients to a diagnosis and set of biopsies and imaging scans. He and the rest of the staff at Texas Center for Proton Therapy are committed to a different approach.

"This center was built for a dual purpose: not only to try to increase the number of cancer survivors but to make their lives better," Lee said.

Texas Center for Proton Therapy's patient-centered care is apparent in the welcoming design of the new, 63,000-square-foot facility, which includes a large community room, a children's activity room and learning center and a beautiful healing garden.

From the time patients and their families walk into the center, it's clear they come first. The waiting room is airy and comfortable with a media lounge close by where visitors can access Wi-Fi to keep in touch with family, friends and colleagues.

"Part of our strategic plan is to encourage

patient bonding," said Christina Mershell, patient support services administrator at Texas Center for Proton Therapy.

"We really want to create an environment where patients are encouraged to talk with other patients and get support from others going through the same thing," Mershell said. "It's been amazing to see the relationships they've created on their own. I've heard of patients following up with each other, going to dinner together and planning vacations based on their relationships here."

Mershell's role includes being an advocate for patients by keeping communication lines open with staff and by ensuring a positive experience throughout treatment. Part of that positive experience includes a host of support services. Patients can get assistance with logistical needs, such as lodging and transportation, as well as recommendations on where to shop or get a haircut.

Because children are expected to comprise about 20 to 30 percent of Texas

Center for Proton Therapy patients, a full-time child life specialist is on hand to help parents and their kids navigate and cope with treatment. Additionally, weekly speaker series luncheons bring clinicians and patients together for further education on medical and social topics. On-site patient and caregiver support groups are planned for the near future.

"We take a lot of pride in being able to offer these services," said Gary Barlow, Texas Center for Proton Therapy director. "We consider it treatment with a commitment to service."

In particular, Barlow highlighted the experience of Cathey Morgan, BSN, RN, OCN, the nurse manager at Texas Center for Proton Therapy.

"The employees here believe in being part of something bigger than ourselves, providing not only an excellent option for cancer care but also taking care of the entire individual as they go through this process," Morgan said.

One big plus for proton therapy is its ability to allow patients to maintain their quality of life during and after treatment, Morgan said.

The precisely targeted radiation minimizes exposure to surrounding healthy tissue, diminishing side effects. Since Texas Center for Proton Therapy is the only proton center in North Texas, patients are expected to come from near and far.

And Lee wants them to feel welcome and cared for. To that end, patients can count on speaking to a live person when they phone the center or receive a rapid call back.

Fundamental to the partnership between Texas Center for Proton Therapy staff members and patients is an easy rapport built on efforts to demystify proton technology "so it's not intimidating," Lee said. "Patients aren't just a set of appointments. They're meant to be taken care of. Having uncertainty at this time of their life is not acceptable."

Ask Bill Solomon, Kayla Piganelli and Bill Golden about the power of protons, and each will tell you that power goes beyond the ability to attack tumors.

All three, who recently underwent cancer treatment at Texas Center for Proton Therapy, credit the precision of proton technology for making it possible for them to go about their day-to-day lives during treatment, including working, going to school and even getting in a few rounds of golf.

For patients like Solomon, Piganelli and Golden, a better quality of life during treatment is a big benefit of advanced proton therapy compared to other treatments. The key difference is that proton treatments deliver the maximum dose of radiation to the tumor site and not beyond, protecting healthy surrounding tissue and minimizing side effects.

"Delivering less radiation to normal tissues can be significantly beneficial if we need to use very high doses of radiation to tumors to improve survival and cure rates, such as for tumors at the base of the skull," said Dr. Victor Mangona, a radiation oncologist at Texas Center for Proton Therapy. "But it's particularly beneficial in patients with a long expected survival from cancer, who can potentially have fewer long-term side effects because we can spare normal tissues."

Proton therapy is effective for a wide range of tumors, including those in the brain, head and neck area, eye, esophagus, lung, prostate, liver, breast, spinal cord and gastrointestinal tract.

Proton therapy is advocated the most as an important treatment option for children with cancer, according to Dr. Daniel Hamstra, a radiation oncologist at the center.

"Proton therapy is advocated foremost in children with cancer," he said. "Since kids are still growing and developing, they're uniquely susceptible to the side effects of radiation on growing organs and tissues."



William "Bill" Solomon



Kayla Piganelli



William "Bill" Golden

destroy his tumor, which was confined to the prostate gland, without surgical removal of the gland and without the potential for devastating side effects.

"While surgeons tell you they'll do everything to spare the nerves around the prostate for a man to continue to be able to function sexually, they can't promise that," said Solomon, 57. "As for radiation, why damage more tissue than needs to be addressed? When I read about proton therapy, I was amazed at how precise and minimally invasive it can be to tissue that's still in perfectly good shape."

Walking into Texas Center for Proton Therapy last November to start treatment "felt like home, as far as I was concerned," Solomon said. He stayed with his daughter who lives and attends college in Dallas during the eight weeks of treatment, which took about an hour each weekday and left him feeling strong enough to keep up a normal work and recreational schedule. Solomon finished his proton treatment in January and will return to Texas

hole. After MRI scans last October showed the tumor had grown, surgeons again attempted to remove it, but a small piece remained.

Enter proton therapy, which doctors felt would be ideal. It could eradicate what was left of the tumor while minimizing potentially damaging side effects.

"I was told that at my age, I probably could have handled the other radiation, but they wanted to make sure my brain was fully mature before putting any radiation in there," Piganelli said. "They didn't want to slow down my development and said proton therapy is better for that."

Piganelli was easily able to travel the one hour from her home to Texas Center for Proton Therapy during her seven weeks of daily treatments, which coincided with a two-month university break.

She dealt only with fatigue and was able to continue her part-time job. She said she became attached to staff members at Texas Center for Proton Therapy.

"Everyone at the center was really nice, and treatments went by fast," Piganelli said. "I was sad to leave."

WILLIAM "BILL" GOLDEN LUNG CANCER

X-rays last fall to investigate a possible heart problem "accidentally" revealed an even larger health threat for 66-year-old Bill Golden. A tumor determined to be non-small cell lung cancer was nestled against his aorta, the body's largest blood vessel. No cardiothoracic surgeon would touch the complex case because surgery held little hope of removing enough of the tissue surrounding the malignancy to guarantee the cancer had been cleared.

But Golden, an accountant from Roswell, N.M., who had successfully weathered numerous health challenges in the past, including cardiac and vascular disease, diabetes and gastric bypass surgery, wasn't sold on

the treatment plan his Albuquerque doctors proposed: a combination of chemotherapy and conventional radiation.

"My heart would have been irradiated because some beam would pass through the tumor and my heart is right there," he said. "The thought of my heart being weakened by it made me overwhelmed and under-awed at the same time. With medicine, if you don't like what you're hearing, you need to go hear from someone else."

An alternate plan evolved after Golden's sister, a Dallas-area resident, did some research and found that proton therapy might be the answer. After getting the

4 FAST FACT:

Texas Center for Proton Therapy is dedicated to current and future cancer survivors and brings advanced, latest-generation proton therapy to North Texas.

go-ahead from Lee, Golden moved into a hotel near the center for a seven-week proton regimen done concurrently with once-weekly chemotherapy treatments.

Scans performed in early March showed Golden's lung tumor had shrunk by more than half. All the while, he continued to work the long hours to which he's accustomed, suffering minimal side effects.

"In Albuquerque, I felt like I was a number being pushed through the system," he said. "But here, they're catering to me at every turn. On my tumor, they're doing what a surgeon couldn't do. You realize there are positive outcomes possible here. I'm very confident they're going to cure this."



TEXAS CENTER FOR PROTON THERAPY

Texas Center for Proton Therapy has three treatment rooms - two isocentric gantry treatment rooms and one fixed beam treatment room.

More than half of the 1.6 million people diagnosed with cancer each year in the United States undergo a course of radiation as part of their treatment, according to the American Society for Therapeutic Radiation and Oncology. Dr. Andrew Lee, Texas Center for Proton Therapy's medical director, estimates that at least one-quarter of that total could benefit from proton therapy because of the location of their tumor and other factors specific to their case. In Texas, nearly 110,000 new cancer cases were expected last year, according to the Texas Cancer Registry.

Here, Solomon, Piganelli and Golden share their experiences:

WILLIAM "BILL" SOLOMON PROSTATE CANCER

Physicians in Bill Solomon's hometown of Tulsa, Okla., recommended treating his prostate cancer with surgery after he was diagnosed in April 2015. But the businessman and father of five had a gut feeling that he should look for other options.

Solomon plunged into exhaustive research that indicated proton therapy could effectively

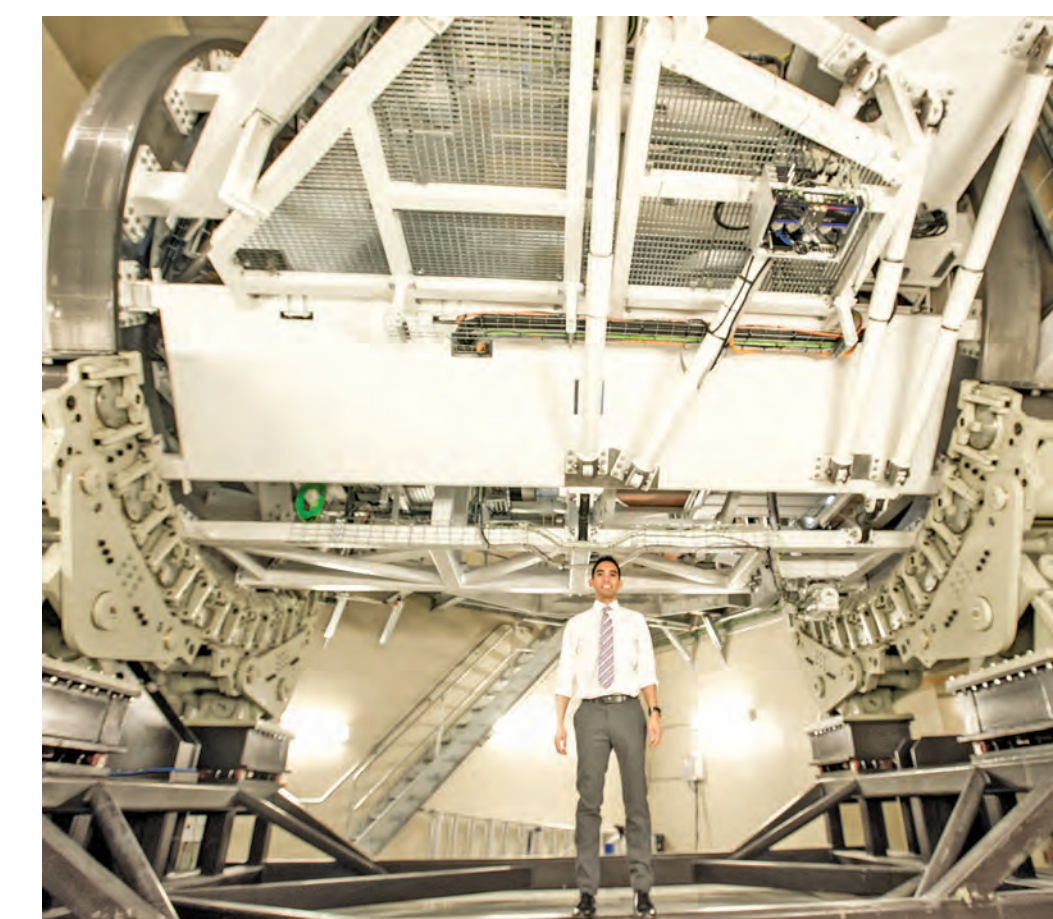
Center for Proton Therapy every few months for follow-up monitoring.

"I was really quite free to do whatever I needed to," he said of his days in treatment. "I even played golf from time to time, and I felt fine. I was able to make customer calls in the D-FW area and could catch a flight home on Friday to spend time in the office. I don't think proton therapy changed anything negatively. It's a huge relief."

KAYLA PIGANELLI PEDIATRIC BRAIN TUMOR

Because of its location near her optic nerve, surgeons at Cook Children's Medical Center in Fort Worth weren't able to remove all of Kayla Piganelli's benign brain tumor when it was discovered in 2011 after triggering severe headaches, nausea and vomiting.

Now 20 and majoring in agriculture at Texas State University, Piganelli has wrestled with continuing problems from the slow-growing tumor, known as a juvenile pilocytic astrocytoma. The mass caused a dangerous fluid buildup in her brain's ventricles in 2014, requiring surgery to drill a pressure-relieving



Dr. Victor Mangona, radiation oncologist, stands under the three-story-tall rotating gantry.



The Healing Garden

3 FAST FACT:

Proton particles accelerate through a 143-foot beamline - nearly half the length of a football field - as they travel from the cyclotron to the patient's tumor with pinpoint accuracy.

FIGHT CANCER

TEXAS ONCOLOGY WELCOMES TEXAS CENTER FOR PROTON THERAPY

With more than 165 locations and 400 physicians throughout the state, Texas Oncology is committed to providing compassionate care and innovative treatments. We're proud of our partnership with Texas Center for Proton Therapy and thrilled to welcome the first center of its kind to North Texas.

TEXAS ONCOLOGY

More breakthroughs. More victories.®

1-888-864-4226 • www.TexasOncology.com

PROTON THERAPY 'DREAM TEAM' PRACTICES IN NORTH TEXAS

PIONEERING SPECIALISTS BRING 75-PLUS YEARS OF COMBINED PROTON THERAPY CANCER TREATMENT EXPERIENCE TO TEXAS CENTER FOR PROTON THERAPY

Leaders. Innovators. Pioneers. Texas Center for Proton Therapy has brought a "dream team" of nationally recognized experts in leading-edge cancer technology to the Dallas-Fort Worth area.

Led by Medical Director Dr. Andrew Lee, the staff of pioneering oncologists, physicists and other clinical staff boasts an unparalleled level of expertise in proton therapy with more than seven decades of combined experience.

Lee distinguished himself in the still-nascent field as the first physician to use pencil-beam scanning in North America,

oncology at Medical City Children's Hospital and for Texas Oncology.

Lenarsky has practiced in Dallas for quite some time, so he knows how much patients and local clinicians will benefit from the region's first proton center. "In the past, when patients wanted to go for this, they had to leave town. That's very disruptive for patient care," he said.

Before the center's opening last November, three months ahead of schedule, Dallas-Fort Worth had been the country's largest metropolitan area without a proton facility. Now, Texas Center for Proton Therapy stands out as one of the few offering latest-generation technology that includes pencil-beam scanning and on-board cone-beam CT image guidance, which helps pinpoint treatment delivery.

Lee credits the staff's rich background in proton technology for enabling the center to hit the ground running.

"The cumulative experience in protons here is 75-plus years, and for a more newly available technology, that level of experience is hard to find," Lee said. "That's true not only on the medical side, but in our physicists, who make sure the care and treatment we provide here are not only advanced, but safe."

Here's more about the center's "dream team" members, including their professional experience and reasons they're on board:

5

FAST FACT:

A community room features the HOPE Wall inscribed with words of encouragement and will host weekly seminars, luncheons and other activities.

an ultra-precise technique that "paints" proton radiation on tumors layer by layer in three dimensions. Pencil-beam scanning delivers precisely targeted beams to tumors while sparing healthy surrounding tissue. Lee and the center's other three physicians are the only proton therapy specialists in North Texas.

"I'm not sure there is any team in the world more qualified," said Dr. Carl Lenarsky, director of pediatric hematology



The staff at Texas Center for Proton Therapy includes (from left) Dr. Jared Sturgeon, Dr. Daniel Hamstra, Dr. Victor Mangona, Dr. Andrew Lee, Chang Chang Ph.D. and Gary Barlow.

DR. ANDREW LEE, MEDICAL DIRECTOR

Before joining Texas Center for Proton Therapy, Lee served for almost 14 years at The University of Texas MD Anderson Cancer Center in Houston, launching proton therapy there in 2006 and pioneering many other firsts in the field. Lee said he has "great confidence" in his team and relishes his role in helping them succeed. He also wants to make his own mark.

"In my time in Houston, I felt good about the treatment we were providing, but we had many patients from North Texas, and I thought it was a shame they had to travel such a long distance to get proton treatment," he said. "Texas is such a big state, it's hard to be displaced for an extensive period of time. One of the reasons I went into oncology in the first place was to make a difference in patients' lives, and here I saw an opportunity to do that. It was an opportunity that I felt I could not turn down."

CHANG CHANG, Ph.D., DIRECTOR OF PHYSICS

A renowned leader in proton therapy medical physics, Chang previously was senior medical physicist at ProCure Proton Therapy Center in New Jersey, where he helped commission second-generation proton technology. Texas Center for Proton Therapy is the third proton center where Chang has worked.

"There are only a handful of second-generation proton facilities in this country, so my experience is a good fit and a skill set you can't find everywhere," said Chang, who has written numerous software programs facilitating proton center clinical

DR. DANIEL HAMSTRA, RADIATION ONCOLOGIST

Hamstra is an internationally recognized expert in radiation oncology, particularly in the treatment of pediatric and brain tumors and prostate cancer. He completed his medical degree and radiation oncology training at The University of Michigan as well as a fellowship in Pediatric Radiation Oncology at St. Jude Children's Research Hospital (Memphis, Tenn.). Before joining Texas Center for Proton Therapy, he held several leadership positions at The University of Michigan, including associate chair of medical education in the radiation oncology department.

"As a pediatric radiation oncologist at The University of Michigan for 10 years, it became increasingly obvious that proton therapy was a critical piece in our treatment," he said. "So I looked for opportunities, and this was a fabulous one in a great metro area with a large population and tremendous need. I hope we will be the go-to center for radiation treatment for kids in the region."

DR. JARED STURGEON, RADIATION ONCOLOGIST

Sturgeon completed a fellowship in proton radiation oncology at The University of Texas MD Anderson Cancer Center in Houston under Lee and most recently was a radiation oncologist at the McLaren Proton Center in Flint, Mich. His interest is in treating breast, head and neck, pediatric and lung cancers.

"I feel lucky we have such amazing physicians here," Sturgeon said. "The doctors here really care about patients

6

FAST FACT:

Cancers treated at Texas Center for Proton Therapy include:

- Brain • Breast • Lymphoma • Pediatric • Sarcoma • Recurrence
- Lung • Gastrointestinal • Prostate • Head and Neck

workflow and co-authored more than 50 peer-reviewed articles, abstracts and book chapters. "This is a great new facility, top of the line, and is the latest second-generation pencil-beam scanning proton center in the country. It was an opportunity I didn't want to miss."

GARY BARLOW, DIRECTOR

Before joining Texas Center for Proton Therapy, Barlow spent 31 years as a radiation oncology administrator in Charleston, S.C., Atlanta and Jacksonville, Fla. There are a relatively limited number of clinicians in the U.S. with proton technology experience. He said he intends to infuse a "culture of service" to Texas Center for Proton Therapy, calling it his most important project after a long career in the field.

Barlow said he hopes his legacy will be to have changed lives, "particularly those of children, who now have the opportunity to be cured of their disease without compromising their quality of life."

"Even though proton therapy has been around since the 1980s, people still don't know about it," Barlow said. "To bring it to the forefront as a recognized cancer treatment will bring me the most gratification."

and what's being done in the best interests of their health. Proton therapy enhances my ability to meet with patients and treat their cancer. I hope we'll be well-known as a place not just for proton treatment but for exceptional patient care."

DR. VICTOR MANGONA, RADIATION ONCOLOGIST

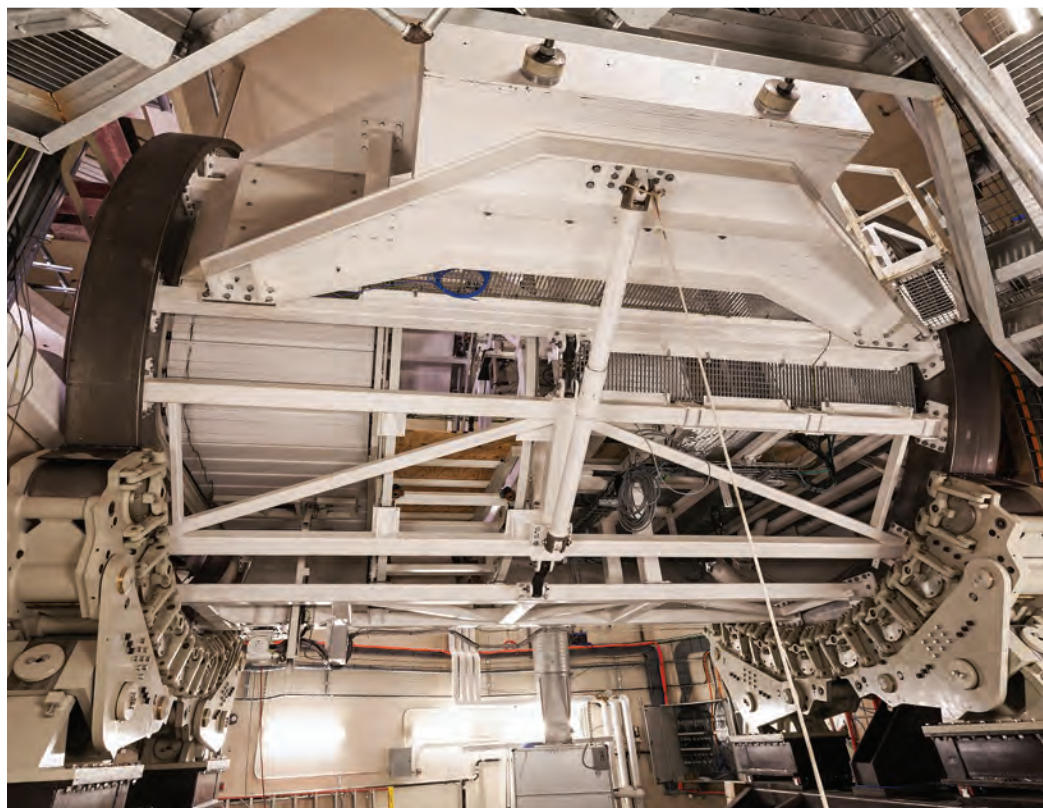
Mangona was a pediatric radiation oncology fellow at The University of Texas MD Anderson Cancer Center in Houston before joining Texas Center for Proton Therapy. A former high school physics teacher passionate about working with children, Mangona also served as chief resident of radiation oncology at Beaumont Health System in Royal Oak, Mich.

"When this position became available, I knew I'd have the opportunity to treat patients in the areas I'm most passionate about, including children with brain tumors, and I can spend the majority of my practice focusing on those areas," Mangona said.

"Only about four people per year in this country complete a fellowship with pediatric training, so it's very rare to have this kind of experience."

Building Hope

The Most Experienced Builder in Planning and Constructing Proton Therapy Centers



Experience + Technology = Results

L I N B E C K

www.linbeck.com

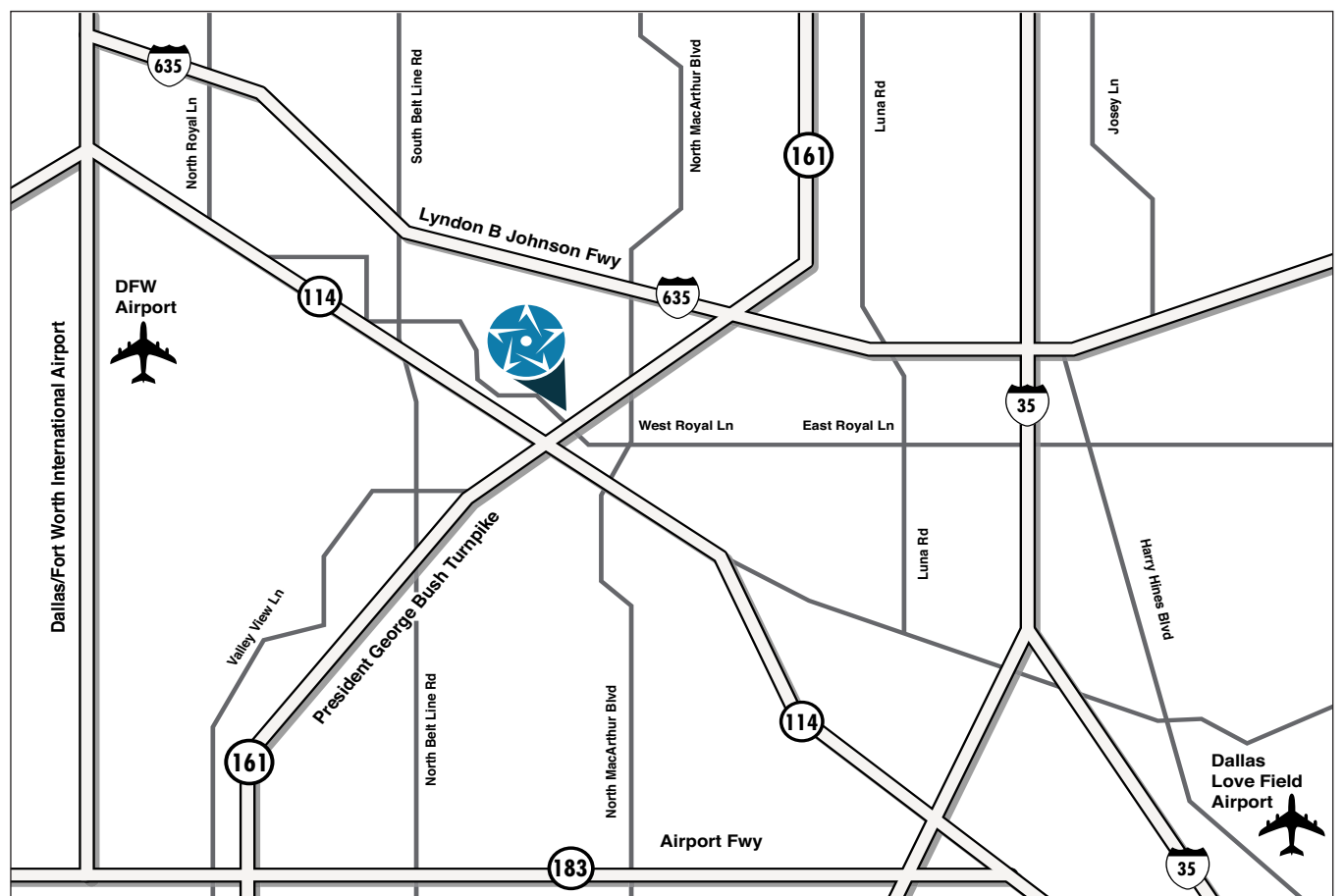


TEXAS CENTER FOR PROTON THERAPY

DIRECTIONS TO TEXAS CENTER FOR PROTON THERAPY

ADDRESS:

TEXAS CENTER FOR PROTON THERAPY
1501 West Royal Lane
Irving, Texas 75063
469-513-5500
1-844-544-0446 (toll free)
Hours: Monday-Friday, 8 a.m. to 5 p.m.
www.TexasCenterforProtonTherapy.com

**From Dallas/Fort Worth International Airport**

- From International Parkway, take the north exit out of the airport. Take the TX-114 E exit toward Dallas and continue on TX-114 E for 3.9 miles.
- Take the exit toward President George Bush Turnpike and merge onto John W. Carpenter Freeway. At the light, turn left onto TX-161/Valley View Lane, and stay in the right lane.
- Take the Royal Lane exit immediately on your right and then turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Dallas Love Field Airport

- From Herb Kelleher Way, exit the airport and veer right onto W. Mockingbird Lane.
- Continue west toward TX-183 W.
- Turn right at the light onto JW Carpenter/TX-183 W and then merge onto TX-183 W.
- Continue on TX-183 W for 1.5 miles, then keep right to merge onto TX-114 W toward Grapevine/DFW Airport North Entry.
- Take the exit toward Walnut Hill Ln/MacArthur Blvd.
- Stay on the access road for 1.2 miles, then turn right onto Connection Drive toward Royal Ln.
- When Connection Drive ends, turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Oklahoma/North

- Take I-35 south toward Dallas.
- In Denton, keep left at the fork to continue onto I-35 E, following signs for I-35 E S/Dallas.
- Continue on I-35 E for 22 miles, then take exit 445A to merge onto President George Bush Turnpike S. Continue on President George Bush Turnpike S, then take the exit toward DFW Airport/Royal Ln/TX-114/Gateway Dr.
- You will see the center on the right, but stay on the service road until you reach the light at TX-114.
- Use the far left lane to take the turnaround under TX-114, then take the exit on the right toward Royal Lane.
- Turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Garland/East

- Take I-635 W toward Irving.
- Take exit 30 to merge onto President George Bush Turnpike S.
- Take the exit toward DFW Airport/Royal Ln/TX-114/Gateway Dr.
- You will see the center on the right, but stay on the service road until you reach the light at TX-114.
- Use the far left lane to take the turnaround under TX-114, then take the exit on the right toward Royal Lane.
- Turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Plano/Northeast

- Take President George Bush Turnpike W into Irving.
- Take the exit toward DFW Airport/Royal Ln/TX-114/Gateway Dr.
- You will see the center on the right, but stay on the service road until you reach the light at TX-114.
- Use the far left lane to take the turnaround under TX-114, then take the exit on the right toward Royal Lane.
- Turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Austin/South (via downtown Dallas)

- Take I-35 north toward Dallas. In Hillsboro, keep right at the fork to continue on I-35 E toward Dallas. Stay left to continue on I-35 E toward Denton/McKinney.
- Keep left at the fork to continue on TX-183 W, following signs for TX-183/TX-114/Irving/DFW Airport.
- Continue on TX-183 W for 2.5 miles, then keep right at the fork to continue on TX-114 W, following signs for Grapevine/DFW Airport north entry.
- Continue on TX-114 W, then take the exit toward Walnut Hill Ln/MacArthur Blvd.
- Stay on the access road for 1.2 miles, then turn right onto Connection Drive toward Royal Ln.
- When Connection Drive ends, turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.

From Austin/South (via downtown Fort Worth)

- Take I-35 north toward Fort Worth.
- In Hillsboro, keep left at the fork to continue on I-35 W toward Fort Worth.
- Once in Fort Worth, take exit 52B to merge onto TX-121 toward DFW Airport.
- Continue on TX-121 N for 8 miles, then keep right at the fork to continue on TX-121 N/TX-183 E toward DFW Airport/Dallas, then follow signs for TX-183 E toward DFW Airport South Entry/Irving.
- Continue on TX-183, then take the exit toward TX-161 N/President George Bush Turnpike N.
- Continue on TX-161 N/George Bush Turnpike N for 2.5 miles, then take the exit toward DFW Airport/Royal Ln.
- Stay in the right lane and follow the exit sign for Royal Ln on your right.
- Turn left at the stop sign onto West Royal Lane.
- Continue under the freeway, and Texas Center for Proton Therapy will be on your right.



FIGHTERS WANTED.

Cancer is a threat everyone needs to face head-on. But you're not alone – you have the most trusted name in cancer care in your corner: Baylor Charles A. Sammons Cancer Center. Our oncology experts have vast experience treating all kinds of cancer. And our Patient Navigators are there to guide you every step of the way. So join forces with us, and see why Baylor Charles A. Sammons Cancer Center is where cancer meets its match.

Bob Schmidt,
Baylor Patient



BAYLOR
Charles A. Sammons
Cancer Centers

Part of **BaylorScott&White HEALTH**

Changing Cancer Care. For Life.™
Visit BaylorHealth.com/CancerCare

All services are not available at all locations. Physicians provide clinical services as members of the medical staff at one of Baylor Scott & White Health's subsidiary, community or affiliated medical centers and do not provide clinical services as employees or agents of those medical centers or Baylor Scott & White Health. BUMCD_1088_2016 CE 03.16



Don't let
**CANCER
THERAPY**
slow them down

Now, one of the most advanced cancer therapies in the world, *Proteus[®]PLUS* from IBA, is available in Irving, Texas at **The Texas Center for Proton Therapy.**

Proton therapy helps patients stay active during treatment by precisely targeting tumors with cancer-fighting radiation and reducing unwanted side effects.

ProteusPLUS effectively treats complex tumors in sensitive areas like the spine, head, neck, breast, and prostate.



ProteusPLUS proton therapy uses pencil beam scanning, a technique that deposits high doses of radiation precisely within the tumor, preserving the surrounding healthy tissue.

Protect,
enhance
and save
lives

iba

www.iba-protontherapy.com

IBA | 2000 Edmund Halley Drive, Suite 210 | Reston, VA 20191

Proteus[®]PLUS is a registered trademark of Ion Beam Applications, S.A