

# From VISION to Reality

**MIMA Cancer Center**  
delivers world-class  
cancer care

By Nanialei Golden, MD



It all started with a vision – to have a comprehensive cancer center within MIMA, the oldest and largest multispecialty physician organization in Brevard County on Florida’s Space Coast.

In 1969, MIMA began as Melbourne Internal Medicine Associates (MIMA) with just three internal medicine physicians. As the population grew in the area around Kennedy Space Center, launch central for America’s space program, so did MIMA, and in its nearly 40 years now has 117 physicians and employs more than 1,000 people. Now boasting 25 specialties, the organization, now called only MIMA, is a comprehensive multispecialty group with 18 Brevard County locations that serves more than 100,000 patients.

Robert Seelman, MD, founding physician and medical oncologist who still practices, recalls that medicine was primitive when MIMA started compared to today. “The local hospital had a 250kV machine and treatment was offered by a diagnostic radiologist. There only were two board-certified radiation oncologists in the entire state. Our original vision was to grow as a group of medical internists, not as a multispecialty group. However, managed care, growth in the state, and patient needs all changed that.”

Today, MIMA’s ancillary services include Brevard County’s largest infusion center, a full-service laboratory including a blood bank, comprehensive diagnostic imaging services (64-slice CT – including cardiac CT, 1.5T open MRI, nuclear cardiology/nuclear medicine, and PET/CT – including cardiac PET), a full range of cardiology testing services, as well as a gastrointestinal laboratory.

## A NEW ERA IN CANCER TREATMENT

In August 2003, MIMA Cancer Center (MCC) opened its doors to the community. “It was an exciting time,” says Todd Scarbrough, MD, radiation oncologist and medical director of MIMA Cancer Center. “Initially, we were treating patients with one Varian IX, but we quickly added a second linear accelerator. Intensity-modulated radiation therapy (IMRT) also became available soon after the center opened, thanks to diligent commissioning by chief medical physicist, Joseph Ting, PhD.”

Scarbrough says that at the start, “Image guidance targeting (IGRT) was done with BrainLab ExacTrac. Current equipment at MCC now includes the Varian Trilogy and Novalis Tx; the latter just being installed in July of this year. All three Varian linacs have On Board Image (OBI) and Cone Beam CT (CBCT) capabilities, and we also offer high dose rate and low dose rate brachytherapy.”

We were doing IGRT before there was even a code for it, and it is very reassuring to be able to see your target right before treatment.

I first started implanting gold markers into prostates for prostate cancer radiation therapy in 2003. When the center opened, MCC also had ultrasound localization available but it had always seemed a bit more subjective to me due to user variability. Prostate cancer makes up about 25 percent to 30 percent of our patient base, so we had good patient volume to do a study comparing localization differences between the two modalities. As it turned out, gold marker localization was superior and we have been using it in all our prostate cases.

The next obvious step was assessing toxicity and that data was presented and updated at the American Society for Therapeutic Radiology and Oncology’s annual meeting. “We have an extremely low rate of side effects,” says Scarbrough. “For patients with significant urinary symptoms before treatment, radiation therapy was actually able to improve [International Prostate Symptom] scores.”

It wasn’t long before MCC added more technology. Varian CBCT went online in 2005 and with it an active stereotactic body radiotherapy program that complements MCC’s cranial radiosurgery program. The technology allows targets to be hit with submillimeter accuracy. Respiratory gating is often incorporated to minimize normal lung irradiation for chest and abdominal lesions.

## TAKING CANCER TREATMENT TO THE NEXT LEVEL

MIMA Cancer Center was now open and the plan was simple: invest in state-of-the-art radiation therapy technology and be the only center in Brevard County to provide the full range of cancer services.

“Radiation oncology was the only oncology specialty not provided within our group,” says Joseph McClure, MD, PhD, medical oncologist, CEO and MIMA’s chairman. “Adding radiation oncology was an obvious next step, one that we’re very happy we took.”

With radiation oncology now a part of MCC, the center did what it set out to do – offer cutting-edge cancer treatments to Brevard patients. “We continue to concentrate on being at the forefront of care and providing patients with the best technology can offer,” says McClure. “That’s why this year we added the Rapid Arc (RA) radiation system.”

MIMA Cancer Center Oncology Case Managers Jane Lyons and Paul Kolarik

MIMA Cancer Center



I am extremely excited about the ability to offer RA. At the time of my writing, there are only eight centers in the world where this technology is available and MCC is the only private practice facility where it is offered. Most of the others are in university-based facilities. The treatment algorithm is still IMRT-based, but the entire treatment is delivered with one revolution of the gantry around the patient – delivering an entire dose usually within two minutes.

In the three months since RA has been in clinical use, patient throughput has become more efficient. The tradeoff is more time required on the front end in the planning phase but, from a radiobiology standpoint, “rapid” treatment is more desirable and effective.

The longer a patient is lying on the treatment couch, the longer the opportunity for target movement. The speed of RA has multiple advantages, including increased efficiency and improved patient comfort. Plus, there are radiobiologic advantages when a dose is delivered quickly, one of the biggest being less dosing to the surrounding organs.

“We are always looking for ways to minimize collateral damage and RA is the next step in further limiting the dose to the adjacent normal organs,” adds Ting. “From a patient safety standpoint, Rapid Arc delivery involves one or two treatment fields, not 10 or 12. The opportunity for human error is much less.”

Along with being a leader in cancer care treatment, MCC also conducts a significant amount of clinical research in areas that include medical oncology, stage III lung cancer, prostate IGRT, prostate toxicity, and SBRT.

James Neel, MD, director of clinical research, speaks to the value of the research conducted by MCC. “Clinical research is a vital component of the comprehensive cancer care we are striving to offer the community through MCC,” says Neel. “Our affiliations provide access to clinical trials that are taking place across the country. Our goal is to provide new, promising therapies that would otherwise be unavailable or require an individual to travel outside the area.” He adds that participation in clinical research is also essential in situations where there is debate concerning the best available treatment. MCC currently participates in clinical trials involving lung, breast, colorectal, and prostate cancer.

“The MCC Tumor Registry has a certified Tumor Registrar that has assisted in monitoring the follow-up of our patients,” Neel says. “The software is OncoLog and database queries allow us to track the different tumor sites treated and monitor follow-up. It’s also a great way to monitor patients under clinical trials.”



Nanialei M. Golden, MD, with Varian Medical System's Trilogy linear accelerator, which allows radiation oncologists to choose from a broad range of external beam therapies, including 3-D CRT, IMRT, IGRT or DART.

“I am continually impressed with the progressiveness of the clinicians,” says Ting. “I’m also happy to see a freestanding center with such a strong sense of academic interests.”

## THE SOFTER SIDE OF CANCER CARE

Warren Greene is a prostate cancer survivor treated at MCC with gold marker IGRT in 2006. “I can’t tell you how good it feels to go into a place where there is no negativity and where everyone is smiling,” says Greene. “Being in that kind of environment gave me a sense of calm. Other clinics were not nearly as warm and as comforting as MCC. The treatment

was noninvasive and didn’t affect my comfort level or interrupt my lifestyle. Plus, I didn’t feel any side effects.” Greene went on to say, “I don’t see life any differently than before. The bottom line is that my cancer is gone; I had it, I got it corrected, and it’s over.”

Carrying that commitment to patient care forward, MCC has integrated oncology case managers into its treatment model in a program called “The Softer Side of Cancer,” which highlights the psycho-social care of the patient.

“We believe cancer is difficult enough to cope with on its own,” says oncology case manager, Jane Lyons, MSW, LCSW. “We try and ease as many other stressors as possible so that the patient and family can focus on healing.”

MCC also has partnered with the American Cancer Society to provide support groups for patients and their families. Classes deal with everything from the emotional and psychological side of treatment to aesthetics like make-up, wigs, lymph edema management, hormonal changes, body image, and quality of life issues. MIMA even has its own wig shop for survivors.

To instill a sense of calm and relaxation, MCC contracted with local artists to paint murals in the waiting areas and treatment rooms. Each treatment room has its own sound system and patients can bring their own music for an added level of personal comfort.

We believe in being not only on the cutting edge of the most advanced treatment available, but also being involved in long-term follow-up, which is just as important. MIMA addresses survivorship; the physical, psychological, and emotional needs of our patients are managed long after treatment is over.

A message on the MCC Web site ([www.mimacancercenter.com](http://www.mimacancercenter.com)) encapsulates the overarching goal of the center and its staff...

*“Our mission is simple: we fight cancer. We know that you are in the fight of your life and you want to be informed about every choice and every option to get well. We believe that you and your*

“We continue to concentrate on being at the forefront of care and providing patients with the best technology can offer.”

| Joseph McClure, MD, PhD

family should be involved in every decision, along with our team of physicians who meet weekly to review your case. We treat many types of cancer with many different courses of treatment that include surgery, drug therapy, and radiation therapy. We use the most technologically advanced equipment, and participate in landmark clinical studies and innovative therapies. There is no longer a one-size-fits-all approach to cancer treatment. Using our experience, patient response history, the specific characteristics of your cancer, your overall condition, and the goal of treatment, we're able to customize a multimodality treatment for each patient for the most successful outcome."

MIMA Cancer Center



Nanialei M. Golden, MD, performs contouring and treatment planning using Varian Medical System's Eclipse.

## THE FUTURE OF CARE IN THE COMMUNITY

Most recently, MIMA expanded its accredited laboratory and established blood bank transfusion services for its patients. This demonstrates the organization's continuing focus on convenience, quality, and planning for the area's future healthcare needs. Services include cross matching, antibody identification, and special blood product matches.

In addition to these many breakthrough medical and technology milestones, MIMA has taken a leadership position in recognizing green development and sustainability. When its newest 36,000-square-foot

facility opened in the town of Malabar, MIMA's "Healthy Earth, Healthy You" initiative included giving 712 Gumbo Limbo tree saplings – which are native to the area – to employees and guests for planting to offset the carbon footprint of the new building. MIMA also donated 100 more saplings to the town of Malabar for use in public spaces.

Plus, to promote healthy living, put the focus on maintaining an active lifestyle, and support its foundation, MIMA began what will be an annual event – the Starfish Strut 5K Run, named after the starfish icon in MIMA Cancer Center's logo.

"We are the largest multispecialty group in the region, bringing the best physicians in the nation to Brevard," says Joseph McClure. "With our investment in cutting-edge technology, our vision to provide efficient, comprehensive, and convenient delivery of services, we are poised to meet the growing healthcare needs in Brevard like no other healthcare organization here can."

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