

Gerald J. Glasser
Brain Tumor Center



Atlantic
Health System
Neuroscience



Inside Look

SPRING 2021

INSIDE THIS ISSUE:

- Former Marine Battles Brain Cancer with Life-Saving Tumor Treatment
- Revolutionizing the Removal of Complex Glioma Tumors
- Treating Recurrent Gliomas with Intense Precision ... and Hope
- Combining the Best in Medical and Non-Medical Care
- Suffering from a Glioblastoma? Is One of Our Current Clinical Trials Right for You?
- Dealing with the Side Effects of Chemotherapy
- Our Newest Members
- Beloved Long-Time Glasser Nurse Retiring

WELCOME!

Welcome to the Spring 2021 issue of the Gerald J. Glasser Brain Tumor Center newsletter. Here you will find the latest brain tumor-related news, helpful suggestions for managing through a brain tumor diagnosis – as well as inspiration – from Atlantic Health System, our partners at Altair Health and our patients.

See how we are using advanced technologies to navigate around gliomas during surgery ... developing novel therapies and leveraging immunotherapy, stereotactic radiosurgery and clinical trials to design better treatment plans ... and redefine what's possible when it comes to best-in-class brain tumor care.



Co-Directors

Yaron A. Moshel, MD, PhD
Neurosurgery

Robert Aiken, MD
Neuro-oncology

Former Marine Battles Brain Cancer with **LIFE-SAVING TUMOR TREATMENT**



Ray Aponte, pictured with his wife, Ana, and daughters Abigail (left) and Zoe (right), underwent successful awake brain surgery at the Gerald J. Glasser Brain Tumor Center.

When Operation Iraqi Freedom launched in early 2003, Ray Aponte of Jersey City was one of the first Marines to deploy to the Middle Eastern country, carrying out covert reconnaissance missions with the 26th Marine Expeditionary Unit. He was called to his second tour of duty two years later at the Al Asad Airbase, one of the largest U.S. airbases in Iraq at the time, as well as to other deployments during his 15-year career with the Marine Corps. However, after braving the harrowing experiences of war, Ray says he has never been more terrified than he was after learning he had a malignant brain tumor – one that, if he survived, would threaten his ability to talk or move for the rest of his life.

“I’ve lived through the unthinkable during combat, and I couldn’t believe that after all of that, I might be taken out by a brain tumor,” says Ray. “Would I survive? What was my life going to look like? Who would take care of my wife and daughters? The thoughts were demoralizing.”

On his side was the fact that Ray – who became an officer with the Jersey City Police Department and a physical fitness

instructor for recruits at the Police Academy after retiring from the Marines – was very attentive to his own health.

“Many people who have mild warning signs of a brain tumor assume their symptoms are part of old age. By the time they see a physician, the mass is overwhelming the brain. Fortunately, that wasn’t the case with Ray,” explains Yaron A. Moshel, MD, PhD, a neurosurgeon at Altair Health and co-director of the Gerald J. Glasser Brain Tumor Center, who was a key part of Ray’s treatment team.

Ray didn’t experience the telltale symptoms of a brain tumor, such as extreme headaches, blurred vision or seizures. Ray’s tumor was discovered incidentally after he had an MRI scan done to evaluate his pituitary gland and hormone levels.

“It’s not uncommon for early-stage brain tumors to be discovered incidentally on MRI scans,” explains Dr. Moshel. “If caught early, many of these tumors can be treated before they progress to aggressive malignant lesions.”

A neurologist recommended Ray go to the Glasser Center

to consult with Dr. Moshel who specializes in removing complex brain tumors.

Dr. Moshel confirmed Ray had a malignant tumor on his frontal lobe, situated within the expressive speech centers and next to the areas of the brain that also control face and hand movement. Given the location of the tumor in the speech center of the brain, Dr. Moshel recommended Ray undergo awake brain surgery – also known as an awake craniotomy – so he could actively monitor Ray’s speech and motor centers while removing the cancerous tumor.

“I had heard about awake brain surgery before, but I never thought I’d be the one going through it,” says Ray. “Dr. Moshel explained everything thoroughly and was extremely reassuring given his expertise and experience, but the whole situation was nerve-wracking. I feared the worst.”

Ray vividly recalls the surgery, including how he tried to diffuse his fear with humor, cracking jokes and singing a song he had sung to his wife, Ana, on their wedding anniversary during the operation.

Ray started to lose some of his speech during the surgery, but Dr. Moshel continued pushing ahead based on his conversations with Ray before surgery. The plan was to get the entire tumor, within reason, even if it meant giving Ray a slight speech impediment, from which Dr. Moshel believed he would recover. Ray left that judgment to Dr. Moshel and his team, as he wanted to fight the disease as best he could. By the end of the five-hour surgery, Dr. Moshel was able to remove the tumor in its entirety. While Ray had trouble speaking the first few days post-surgery, his speech has largely returned to normal.

”

“I’m incredibly grateful for Dr. Moshel, Dr. Aiken, Dr. Emmolo and the outstanding team of nurses and staff at the Glasser Brain Tumor Center for everything they have done for me – from the advanced medical care I have been so fortunate to receive ... to the personalized care that has helped me keep a positive mindset through it all,” says Ray. “My story goes to show you have to be proactive with your health. It could save your life.”

“

During the surgery, Ray was alert, though not in pain, which allowed Dr. Moshel to perform awake brain mapping. By asking Ray to do things like talk and sing his ABCs while performing the craniotomy, Dr. Moshel and his team were able to narrow in on the exact locations of specific functions in the brain and determine the safest way to remove the tumor and preserve critical brain tissue.

“To prevent Ray’s tumor from ever coming back or progressing into an aggressive malignancy, we examined the genetic profile of the tumor,” adds neuro-oncologist Robert Aiken, MD, co-director of the Glasser Center. “This allows us to complement surgery with highly personalized, targeted drug treatments – also known as personalized genomic therapy – in addition to gold standard chemotherapy. Ray’s tumor had a genetic profile that showed the IDH-1 gene mutation, which suggests his tumor will be responsive to treatment and behave well in the long run.”

Ray is now undergoing radiation and chemotherapy to target what Joana S. Emmolo, MD, Director of Radiation Oncology at the Glasser Center, calls any remaining misbehaving cells.

“Modern radiation therapy delivers precise, high-energy beams in a way that targets Ray’s tumor bed while sparing the healthy surrounding tissue,” says Dr. Emmolo. “This will enable him to continue living his life as normal during treatment and provide the best chance for long-term disease control.”



Just moments after the surgery, Ray gave the entire team a thumbs up, a testament to the power of awake brain surgery.

Revolutionizing the Removal of **COMPLEX GLIOMA TUMORS**

Gliomas are one of the most common types of brain tumors – and one of the most difficult to treat. Surgery to remove the tumor, usually the first treatment step, is complicated because gliomas don't have clear biological boundaries. They are surrounded by what's similar to a fog.



Using revolutionary, game-changing technology – along with 3D glasses, high-definition monitors and a robotic exoscope – the entire surgical team can now see the minute inner workings of the brain with pinpoint accuracy.

“Glioma surgery entails sculpting out a tumor that truly cannot be seen because of the surrounding fog and its relative positioning to the brain,” explains Yaron A. Moshel, MD, PhD, Co-Director of the Gerald J. Glasser Brain Tumor Center and a neurosurgeon with Altair Health. “When these dense tumors infiltrate the body’s most complicated organ, the brain, and become intertwined with the functional areas that control language, memory, motor and sensory skills – as they often do – the risks and challenges of removing them intensify.”

Removing gliomas as safely and completely as possible requires years of experience and a deep understanding of the brain’s three-dimensional anatomy and functional relationships. Today, this expertise is supported by technological advances that enable more precise, less-invasive tumor removal.

From 2D to 3D with Stereotactic Guidance

Traditionally, neurosurgeons used two-dimensional MRI scans taken before surgery to help them envision the tumor and guide their approach in the operating room. Now, with

Medtronic’s Stealth Station S8 Surgical Navigation System – the most advanced stereotactic guidance available – multiple types of MRI scans, including functional scans that illuminate speech and motor centers, can be overlaid with three-dimensional images of the tumor. This imaging and GPS-like technology help identify the tumor’s boundaries and provide a precise surgical line of sight.

“The move from 2D to 3D is significant,” adds Dr. Fabio Frisoli, MD, a neurosurgeon at the Glasser Center and Altair Health. “With a 3D view of the tumor, you’re much more likely to be able to remove the tumor in its entirety while minimizing any potential disturbance to other areas of the brain.”

Fluorescent Imaging, Glowing Tumors and the Standard of Care for the Future

Fluorescent imaging is one of the newest advancements in brain tumor care. Patients ingest 5-ALA, a liquid solution that circulates throughout the body and causes a malignant tumor to glow a bright orange color. The tumor fluorescence is seen

with a special microscope equipped with a highly specific blue light filter. After years of use abroad, this emergent technology was recently approved for use in the U.S.

“The Glasser Center is one of the first providers in New Jersey to harness the power of fluorescent imaging for brain tumor care. We believe this fluorescent tracer will become the standard of care because of the immense advantage it provides in distinguishing malignant cells from healthy tissue,” says Dr. Moshel.

Combining Technologies with Advanced Microscopes

The newest microscope, the Zeiss Kinevo, incorporates intraoperative fluorescent imaging of the tumor and the Stealth Navigation 3D images, giving neurosurgeons every piece of information they need during surgery, including a “heads-up display.”

“Before this technology, neurosurgeons would essentially look at a screen on their left displaying an MRI, then turn back to the operating table to apply what they saw on screen to the patient in front of them,” explains Dr. Moshel. “This combination of technologies now allows us to see everything right in front of us and safely remove some of the most complex tumors in some of the most difficult-to-reach locations.”

“Coming to battle with leading-edge technology and advanced tools continues to change the landscape of what’s possible with brain tumor surgery. These advances play a significant role in achieving enhanced outcomes and improved long-term prognoses,” Dr. Frisoli concludes.



Getting it **RIGHT** the **FIRST TIME**

When it comes to gliomas, removing the tumor in its entirety – versus one piece at a time – is particularly important. Advanced technology makes this possible, allowing neurosurgeons to more easily follow the outer wall of the tumor and dissect around it, like peeling an orange.

If the entire tumor is not removed and a patient begins follow-up radiation, the residual tumor can swell, ultimately requiring the patient to stop treatment and undergo a second surgery. At the Glasser Center, we have seen this in patients who have come to us for help after initial surgeries performed elsewhere. Factoring in post-op recovery time before resuming treatment, this can easily set a patient back by two months or more. This not only impacts survival rates, but can also alter a patient’s course of treatment.

**DID
YOU
KNOW?**

Approximately **50% of patients** treated at the
Gerald J. Glasser Brain Tumor Center **are battling gliomas.**

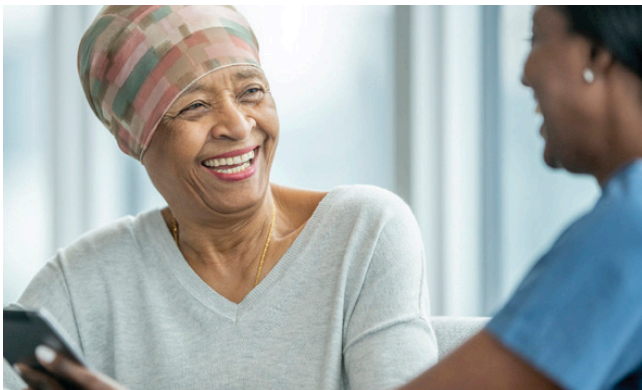
To learn more about advanced surgery for brain tumors, please contact Drs. Moshel and Frisoli at 973.993.7322.



Treating Recurrent Gliomas with INTENSE PRECISION ... AND hope

While there is no cure for gliomas – and they are challenging to manage because they grow within the brain and inevitably reoccur – there are very effective treatments.

The current standard of care when a glioma is first diagnosed includes surgery followed by radiation, chemotherapy and tumor treating fields, mild electrical fields that pulse through the skin and interrupt the cancer cells' ability to divide.



Treating recurring gliomas is not as straightforward, but many options exist. They can include:

- Enrollment in a **clinical trial** to evaluate novel treatment agents
- A **second surgery** when possible for removal of the tumor
- Repeat **radiation** if a long period of time has passed since initial treatment
- Systemic therapies such as **targeted drugs** that attack the specific genes and proteins involved in the growth and survival of cancer cells
- **Stereotactic radiosurgery (SRS)**

SRS is a radiation technique that delivers numerous narrow, precisely aimed, highly focused beams of converging radiation to the designated target. At Overlook Medical Center, the CyberKnife® system of SRS is used to administer this second course of radiotherapy with robotic precision and sub-millimeter accuracy.

The CyberKnife system noninvasively delivers treatment using a linear accelerator mounted on a robotic arm. High-energy X-rays, guided by real-time imaging, are delivered to the tumor, avoiding healthy tissue while reducing and potentially preventing post-treatment-related toxicity. Patients are able to continue their normal activities – as well as their current systemic therapy regimens – while receiving SRS.

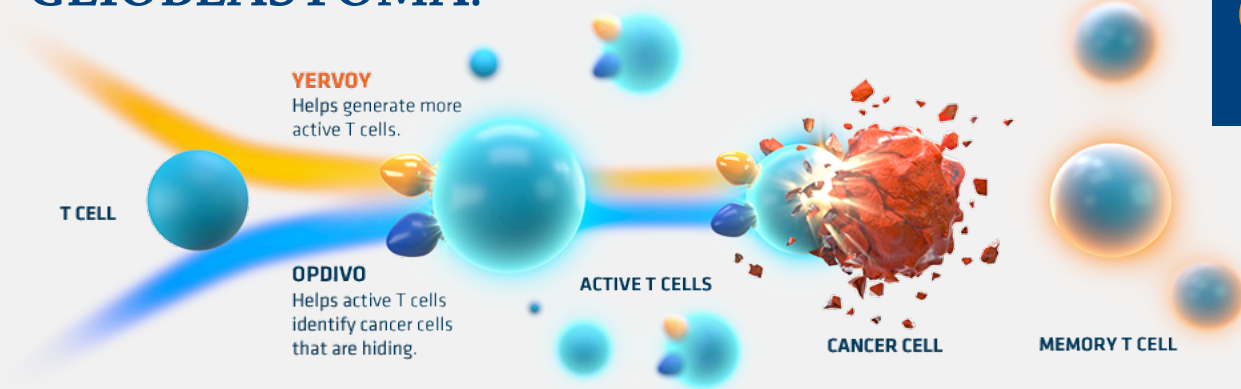
Key to SRS's success in treating repeat gliomas is choosing the appropriate patient, based on the amount of time that has passed since the initial diagnosis and the first course of therapy, the patient's overall condition, the extent of the recurrent disease and the anticipated prognosis.

SRS can not only prolong survival – it can prolong high-quality survival.

In general, most recent retrospective studies have shown that overall survival from the time of reirradiation can range from seven to 16 months, which compares favorably to the overall anticipated survival in patients with recurrent glioma. Oftentimes SRS, in combination with medical treatment for a recurrent glioma, can noninvasively keep the tumor under control.

“Having a noninvasive alternative is an important benefit to our patients and their families during this critical time,” Joana S. Emmolo, MD, director of radiation oncology at Overlook Medical Center, comments. “Enabling them to enjoy family and social events without disruption while battling this aggressive disease is a blessing.”

GLIOBLASTOMA:



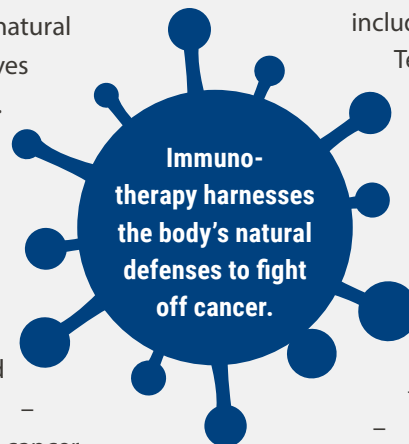
CLINICAL
TRIALS

Is One of Our Current Clinical Trials Right for You?

A glioblastoma is the highest grade, most malignant form of a glioma. At the Gerald J. Glasser Brain Tumor Center, two clinical trials to evaluate the potential role of immunotherapy – specifically immune checkpoint inhibitors – in patients with glioblastoma are currently underway.

Cancer cells often evade the body's natural defenses by, in part, making themselves invisible to the immune system. They make proteins that prevent the body's immune system from recognizing them as invaders that need to be destroyed.

Different types of immune therapies – some actively being implemented and others under investigation – stimulate the body to recognize cancer and fight it off in different ways. Some augment the immune system's ability to inhibit or stop cancer growth. Others ignite the production of substances made in the body or in a laboratory to destroy cancer cells. These include synthetically engineered monoclonal antibodies such as immune checkpoint inhibitors, oncolytic virus therapy, T-cell therapy and cancer vaccines.



Monoclonal antibodies are chemically designed to latch onto unique receptors on the surface of cancer cells in the same way the body normally fights infection. Checkpoint inhibitors unmask the cancer cells, allowing the immune system to recognize them and empowering the body to boost its capacity to destroy them. Common checkpoint inhibitor medications include Yervoy®, OPDIVO®, Keytruda®, Tecentriq®, Bavencio® and Imfinzi®. These immunotherapy treatments can be used alone or in combination with other cancer treatments.

One clinical trial currently underway at the Glasser Center is examining the combination of radiation with Yervoy and OPDIVO – two immune checkpoint inhibitors – in patients with newly diagnosed glioblastoma that are MGMT unmethylated. These tumors have a molecular profile that makes them less likely to respond to standard chemotherapy.

A second clinical trial is for patients with recurrent, hypermutated glioblastoma who have failed at least one prior therapy. Hypermutated tumors contain a high number of gene errors and appear more prone to respond to immunotherapy.

To learn more, contact Patrice Light, Clinical Trials Nurse Coordinator, at 908.522.5914.

Getting the best medical care for a brain tumor is just part of the process that drives the healthiest outcomes.

Getting the best support services is the other.



Combining the Best in Medical and Non-Medical Care

“What’s the process?” “Where do I start?” “What’s going to happen to me?” “How do I sequence appointments?” “Will my loved one be okay?”

“I’m scared. Where can I turn?”

At the Gerald J. Glasser Brain Tumor Center, our multi-disciplinary team – including our social work navigator – answers these questions and more. We work closely with patients and their families, providing appointment scheduling, referrals and other support as well as the counseling that enables emotional and mental wellbeing.

Social Work Navigator Janet LeMonnier, LSW, meets with patients and their caregivers early on, getting to know them

and the services they might need over time, including transportation to treatment, counseling for children and additive therapies such as yoga and mindfulness. Most important, Janet offers the counseling and emotional support only someone who understands the experience can provide.

“Supporting the best in medical care with the best in support services makes a real difference in health outcomes,” Janet shares. “We know that emotional wellbeing is critical to recovery, which is why we support the process as heavily from this non-medical side as we do from the medical one.”



More than **700,000 people** are living with a brain tumor in the US. Almost **80,000 Americans** will be diagnosed with a primary brain tumor this year.

To learn more about these non-medical support services, contact Janet LeMonnier, LSW, Social Work Navigator, at 908.522.5159.

Dealing with the Side Effects of Chemotherapy



Chemotherapy ... with all of its wondrous outcomes ... can cause many side effects.

What's the best way to combat them? A combination of medical and holistic approaches can be very effective in relieving nausea, constipation, fatigue and low blood cell counts. Read on to learn more.

What are Good Ways to Manage Nausea?

An anti-nausea medication – commonly Zofran® – can be taken 30 minutes prior to a chemotherapy treatment and then every eight hours as needed.

Outside of medication, nausea can be prevented and treated by:

- Eating small, frequent meals throughout the day.
- Staying hydrated by drinking small sips of water, juice, ginger ale and other liquids at a time.
- Enjoying peppermint tea and ginger candies, which can be found at your local grocery store.
- Partaking in relaxation techniques such as meditation, yoga and aromatherapy.

How can Constipation be Relieved?

Use a stool softener (such as Colace®) and a laxative (such as Senna or MiraLAX®) as prescribed.

In addition:

- Stay hydrated by drinking water, fruit juices and decaffeinated tea.
- Eat foods high in fiber, such as pears, apples, prunes, oatmeal and fiber cereals.
- Exercise daily. Walking for five minutes three to four times a day as tolerated will help.

How can Fatigue be Combated?

It's best to treat fatigue naturally by:

- Balancing activity and rest.
- Ensuring proper nutrition and hydration.
- Moving your body daily, including stretching, walking and doing yoga.
- Trying to get plenty of sleep at night.

While not preferred, a prescription medication can be taken if fatigue is interfering with daily life.

What can be Done About Low Blood Cell Counts?

Low blood cell counts can cause a variety of symptoms including fatigue, easy bruising and increased risk of infection. Frequent blood tests monitor blood cell counts, and prophylactic antibiotics may be administered to prevent certain infections.

Natural ways to support an impacted immune system include:

- Well-balanced nutrition to ensure appropriate vitamin and nutrient intake.
- Proper infection prevention including hand washing and avoiding contact with anyone who is sick.
- Avoiding dental procedures unless cleared by a physician.
- Getting sufficient sleep and daily exercise.

Want to learn more? Contact Angela Davis, APN, at the Glasser Brain Tumor Center at 973.993.7322.



Two Foundations Support Patients, Families and the Gerald J. Glasser Brain Tumor Center



The Center for Hope Foundation – founded by the Gerald J. Glasser Brain Tumor Center team from Altair Health – brings patients and caregivers together.

Once a month, patients, family members and professionals – including nutritionists, neurosurgeons, oncologists, acupuncturists, financial resource planners, social workers and massage therapists – meet to discuss the challenges and successes of living with a brain tumor. The Center for Hope Foundation provides a supportive place where the compassion, education and community that are critical to maintaining hope in the face of a difficult diagnosis abound. These meetings are open to all community members.

For information – and to attend a meeting – please contact The Center for Hope Foundation at 973.285.7800.



Overlook Foundation provides patients, families and supporters with a way to make a difference in the lives of those impacted by brain tumors.

Gifts large and small enable the Glasser Center to provide a state-of-the-art – and state-of-the-heart – comprehensive program for any patient in need of diagnosis, treatment and support. Gifts large and small enable advances in research, access to the world's best technology, world-class leadership and compassionate programming that supports patients and their families through a very difficult time in their lives.

To make a gift ... honor a loved one or a caregiver ... or raise funds in your community to support the Brain Tumor Center, please contact the office of Strategic Development at Overlook Foundation, at 908.522.2855.



Our Newest Members



Driven by commitment and passion, Angela Davis, a neuro-oncology nurse practitioner, has devoted her career to providing her patients with patient-centered care, ensuring accessibility and attention throughout her patients' journey.

Angela received her undergraduate degree from Purdue University and her graduate degree from Chamberlain University. She began her role as a nurse practitioner at Northwestern University in Illinois, where she was awarded the Planetree Award for Nursing Excellence.



Driven by exceptional patient care and compassion, Suzanne Pletchon, a Neuro-Oncology Registered Nurse, thrives to provide the utmost professional and kindhearted care to all patients she encounters.

Suzanne received her Nursing degree from Bergen Community College and worked for 13 years in Neurosurgery and Pain Management prior to joining the Neuro-Oncology team at Atlantic Health System.

Beloved Long-Time Glasser Nurse Retiring



"The secret for success is to love what you do," says Pat Eagan, RN, who has been with the Brain Tumor Center since it opened in 1999, long before it became the Center of Excellence known as Gerald J. Glasser Brain Tumor Center in early 2017. Because of her previous background as an oncology/research nurse, Pat was chosen to support founding medical director Dr. Michael Gruber who worked with the Overlook Medical Center administration to open the specialized center to treat malignancies of the central nervous system.

Over her long career, Pat's role evolved from a nurse navigator position, although that title was not then in use, to a practice clinical supervisor, working with Maggie Brady, LCSW, an oncology social worker to assist patients with situations that arise. Recently, she has been winding down her position and training others in the roles that she has performed. "Working with insurance companies," she explains, "can require a good deal of perseverance."

Pat says "Early on I determined that caring for these patients and their loved ones is a sacred calling. In so doing, my life has been enriched." When asked to consider the legacy she leaves behind, Pat reveals "My legacy is compassion. What stands out in my memory most are the times of success and having the privilege of being a part of the joy one sees in these moments. I have witnessed the extraordinary love and devotion of a parent with a child, a spouse with their spouse, and a child caring for a parent. The depth and breadth of love in these moments is breathtaking and quite unforgettable."

Pat says she is pleased that the research, care and treatment provided by the expert surgeons and neuro-oncology specialists at Glasser has become so widely known. "I predict that Glasser's reputation for novel, comprehensive care will continue to expand, and the Center will grow to meet this demand," she says. "I have had the honor to work with the finest physicians one could ever hope to meet and know. I cannot underestimate all that I have learned from them about the treatment of these diseases."



The science of medicine.
The power of hope.

About the Gerald J. Glasser Brain Tumor Center

The Gerald J. Glasser Brain Tumor Center brings the most comprehensive and innovative treatments to benign and malignant tumors of the brain, skull base, spine and spinal cord.

Our team of experts – including neurosurgeons from Altair Health – help patients and their loved ones navigate the journey from diagnosis through treatment. Every patient who visits the center has access to a panel of experts. The group meets regularly during a dedicated Tumor Board Review meeting to create a personalized treatment plan for all patients based on their clinical evaluation.

All this is possible thanks to the generous donation of the Glasser Foundation's founding gift and support.



Overlook Medical Center

Atlantic Neuroscience Institute
99 Beauvoir Avenue, 5th Floor
Summit, NJ 07907

Medical Arts Center (MAC) II
11 Overlook Road, Suite 180
Summit, NJ 07907

Morristown Medical Center

Carol G. Simon Cancer Center
100 Madison Avenue
Morristown, NJ 07960

T: 973.993.7322

F: 908.522.5051

glassercenter.com