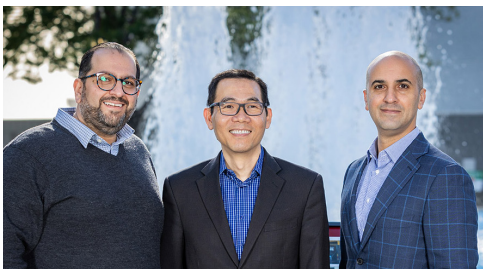
The Official Newsletter of the
Keck Medicine of USC
USC Brain Tumor Center
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USC Norris Comprehensive Cancer Center
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USC BRAIN TUMOR CENTER Report

Volume 6 ▪ Issue 4
AUTUMN 2026

From the USC BTC Directors



Dear Patients, Families, and Friends, we are glad to share the Fall USC BTC newsletter with you. There is much to tell you about, beginning with the opening of our **brand new Gamma Knife Radiosurgery Center** at Keck Medicine of USC. Bringing the **Leksell Gamma Knife Esprit** to our center gives our team the most advanced way to tailor treatment to the people we care for, using precisely targeted stereotactic radiosurgery without an incision. We are grateful to our colleagues across specialties who helped make this possible.

We also know how much it matters to receive care close to home. Through our partnership with **USC Arcadia Hospital**, patients in the San Gabriel Valley can begin care in their community while drawing on our Brain Tumor Center's specialists, clinical trials, and support services.

We hope you will enjoy getting to know **Rebekah Ghazaryan, NP** in this issue's Staff Spotlight. Her care for patients and families, and her dedication to helping them understand and navigate treatment, deserve recognition. Please join us in congratulating Rebekah on completing her Master of Science in Nursing and earning national board certification as a Family Nurse Practitioner this year.

Rebekah also shares a thoughtful message in **Patient's Corner** about **caring for the whole person**. How you feel, what you hope to return to, and what worries you are all important conversations to have with your care team. For the loved ones caring for someone with a brain tumor, our **Caregiver Support Group** offers a place to ask questions and find understanding. Now in its fourth year, the group combines practical guidance with support from others who share that experience.

Our commitment to our patients and the broader brain tumor community extends well beyond the clinic. During the past month, our team attended the **American Brain Tumor Association's National Conference** in Chicago and participated in the **ABTA Breakthrough for Brain Tumors 5K Race**.

We value these opportunities to spend time with patients and families beyond appointments and support the ABTA's research and resources. Our annual educational **partnership with The Cleveland Clinic** brought another opportunity to learn together, as clinicians exchange knowledge about advances in brain and spinal tumor care.

Looking ahead, we invite you to the **inaugural Rivalry for Hope golf tournament** on November 19, 2026. Independently organized, the event will bring **USC and Notre Dame** supporters together with passionate advocates for brain cancer research at both institutions. We are excited to highlight our own **USC BTC Advisory Council member and USC student Willa Chandler**, who is helping to organize the event. Inspired by her family's experience with glioblastoma, Willa brings a personal commitment to her fundraising and advocacy, and we are beyond grateful for her work.

To our many donors, grateful patients and families and community and industry supporters, thank you. Your gifts support research and help us care for patients and caregivers with the latest treatments possible. We deeply appreciate your generosity and the trust you place in our team. We look forward to continuing to focus on our mission, until there is a cure.

Heal on!

Gabriel Zada, MD, MS, FAANS, FACS
Co-Director, USC Brain Tumor Center

David D. Tran, MD, PhD
Co-Director, USC Brain Tumor Center

Josh Neman, PhD
Scientific Director, USC Brain Tumor Center



Keck Medicine of USC Celebrates the Arrival of Gamma Knife Esprit

On September 17, colleagues, partners and friends of the USC Stereotactic Radiosurgery Center came to Keck Hospital of USC for an open house celebrating a milestone for our program. Keck Medicine of USC is the **first center in Southern California to offer the Elekta Gamma Knife Esprit**, the newest generation of Gamma Knife radiosurgery.

Gamma Knife delivers hundreds of tightly focused beams of radiation that meet precisely at the target, so the tumor gets a powerful dose while the healthy brain around it is largely spared. There is no incision. Treatment is done as an outpatient, and most patients go home the same day and get back to normal activities quickly. The Esprit platform adds onboard imaging and the option of a frame-

Continues on page 2

"New Era of Precision" ***continued***

less, mask-based setup. That lets us treat in a single session or spread treatment over several sessions, so we can safely take on large, complex tumors and tumors close to critical structures, with a low risk of complications.

The center has already treated thousands of patients with benign and malignant brain tumors, brain metastases and spine tumors.

The new system builds on that experience. What sets the program apart is the team. Neurosurgeons **Drs. Frank Attenello, Gabriel Zada, William Mack,** and **Darrin Lee** work side by side with radiation oncologists **Drs. Eric Chang, Jason Ye, Aram Modrek,** and **Adam Garsa** to build a treatment plan around each patient.

We're grateful to everyone who joined us to celebrate, and we look forward to what this technology will mean for our patients and the communities we serve.



Introducing Rebekah Ghazaryan, MSN, APRN, PHN, NP-C



At the **USC Brain Tumor Center**, exceptional patient care extends beyond treating a medical diagnosis. It involves understanding the individual behind the condition, recognizing the challenges patients and their families face, and providing compassionate, comprehensive care throughout every stage of their journey. For Rebekah Ghazaryan, MSN, APRN, PHN, NP-C, Neurosurgery RN Clinical Coordinator at the USC Brain Tumor Center, this philosophy is both professional and deeply personal.

A Personal Connection to Neurosurgery

Rebekah's interest in neurological care was shaped by her experience growing up with a mother living with a chronic neurological condition. Witnessing the complexities of neurological disease firsthand gave her a unique appreciation for its impact, not only on the patient but on the entire family.

Being on the other side of healthcare as a family member helped shape her understanding of the uncertainty, emotional challenges, and difficult decisions that often accompany a neurological diagnosis.

Combined with her fascination with the complexity of the brain and nervous system, this experience ultimately drew her toward neurosurgery.

"Having a family member with a neurological condition has given me a perspective that extends beyond the clinical setting. I understand what it feels like to have questions, experience uncertainty, and worry about someone you love. That experience has profoundly shaped the way I approach patient care."

Caring for the Whole Person

In her role at the Brain Tumor Center, Rebekah works closely with the multidisciplinary neurosurgical team to help coordinate complex care, provide patient education, facilitate communication, and support patients and families from diagnosis through treatment, recovery, and long-term surveillance. Central to her philosophy is the belief that a patient is never simply a diagnosis.

"When we care for someone with a brain tumor, we're not just treating what we see on an MRI. We're caring for an individual whose diagnosis may affect their emotional well-being, family, relationships, independence, and overall quality of life. Understanding those factors is just as important as understanding the medical aspects of their condition."

Rebekah emphasizes the importance of considering the medical, psychological, and social needs of every patient while recognizing the vital role families play throughout the healthcare journey.

She believes that listening, building trust, and providing thoughtful education are essential to helping patients feel informed, supported, and empowered in their care.

One of the most meaningful aspects of her work is developing lasting relationships with patients and families, many of whom return to the Brain Tumor Center for years of ongoing surveillance and follow-up.

A Passion for Academic Medicine and Research

Beyond direct patient care, Rebekah has a strong passion for academic medicine and the opportunity to work alongside physicians and researchers advancing the field of neurosurgery.

She is particularly interested in the Brain Tumor Center's work involving meningioma research, glioblastoma (GBM) clinical trials, and pituitary tumor research, where scientific discovery and innovation continue to create opportunities to improve patient care.

"One of the things I value most about working in academic medicine is being surrounded by people who are constantly asking questions, challenging existing knowledge, and finding new ways to improve patient outcomes. It's incredibly rewarding to be part of an environment where research and clinical care come together."

For Rebekah, the intersection of research, clinical innovation, and compassionate patient care is what makes working at the USC Brain Tumor Center especially fulfilling.

Continuing a Journey of Professional Growth

The year 2026 marked an important milestone in Rebekah's professional journey. In May, she earned her Master of Science in Nursing from the University of Southern California, completing her Family Nurse Practitioner program. In July, she achieved national board certification as a Family Nurse Practitioner.

Her pursuit of advanced practice nursing reflects her dedication to lifelong learning, professional growth, and expanding her ability to provide comprehensive patient care. Rebekah was also honored with a nomination for the 2026 USC Choi Nursing Award, recognizing her contributions and commitment to nursing excellence.

Looking ahead, she remains passionate about advancing patient education, continuity of care, and survivorship, with particular emphasis on supporting the long-term medical and psychosocial needs of patients living with brain tumors.

Looking Ahead

As the USC Brain Tumor Center continues to advance its clinical and research initiatives, Rebekah is grateful to work alongside a multidisciplinary team dedicated to delivering innovative and compassionate care.

Her personal experiences, professional journey, and passion for neurological medicine continue to guide her commitment to patients and their families.

"At the end of the day, our patients are so much more than their diagnoses. They are parents, spouses, children, friends, and individuals with lives, goals, and people who love them. My hope is that every patient feels seen, heard, and supported, and knows they never have to navigate their journey alone."

For Rebekah, that is the foundation of meaningful patient care: treating the whole person, not just the diagnosis.

Comprehensive Brain Tumor Care, Close to Home in the San Gabriel Valley

Patients at **USC Arcadia Hospital** now have direct access to the **Keck Medicine of USC Brain Tumor Center (BTC)**, one of the region's most experienced programs for brain and spine tumors, bringing the full resources of an academic cancer center to the local community.

Drs. Tatsuhiro Fujii, Greg Withers, and **Vincent Nguyen**, staff physicians at USC Arcadia Hospital, are partnering with the BTC team, which includes neurosurgeons **Drs. Frank Attenello, Gabriel Zada, Thomas Chen,** and **Steven Giannotta**, neuro-oncologist **Dr. David Tran**, and radiation oncologists **Drs. Eric Chang, Jason Ye, Aram Modrek,** and **Adam Garsa**.



Through the BTC, patients can be evaluated by surgery, neuro-oncology and radiation oncology in a single visit, and complex cases are discussed at a multidisciplinary tumor board so each patient receives one coordinated plan.

Treatment options include minimally invasive surgery and laser interstitial thermal therapy (LITT), which treats some deep or hard-to-reach tumors through a small opening in the skull.

Patients also have access to Gamma Knife Esprit radiosurgery, the first system of its kind in Southern California, as well as clinical trials, advanced molecular testing of tumors, and the specialized support services of a tertiary cancer center.

Patients can begin care close to home, with the full BTC team involved from the start. **To schedule or refer a patient, call: (323) 442-5720.**

USC Brain Tumor Center Proudly Serves as a Platinum Sponsor at the ABTA National Conference

The **USC Brain Tumor Center (BTC)** was honored to return as a **Platinum Sponsor of the 2026 American Brain Tumor Association (ABTA) National Conference**, joining patients, caregivers, healthcare professionals, and researchers for a weekend of education and connection. The conference brought people together to explore advances in brain tumor research, treatment, and care while making room for conversations about the everyday experiences of patients and families.



This year's program addressed questions that many people face after a brain tumor diagnosis, including how clinical trials work, how treatment decisions are made, and how to find emotional and practical support.

Sessions explored topics such as nutrition, integrative medicine, caregiver well-being, and the use of artificial intelligence in healthcare. Opportunities to hear from experts and connect with others gave participants several ways to learn and engage, whether attending in person or virtually.

For our USC BTC team, a meaningful part of the conference was reconnecting with patients and caregivers who had attended in previous years. We also welcomed the opportunity to meet new attendees and introduce them to our center. These conversations offered time to listen, exchange experiences, and discuss the questions that bring patients and families to events like this one.

We extend special thanks to **Nancy Hart, our Patient Navigator**, for representing the USC Brain Tumor Center and welcoming attendees to our table. Having a familiar, approachable team member available helped create opportunities for conversation and connection throughout the event.

As a returning Platinum Sponsor, USC BTC was proud to support the ABTA's work in brain tumor research, education, and patient and caregiver resources. We thank the **American Brain Tumor Association**, its speakers, volunteers, and conference participants for making this gathering possible. We look forward to continuing these conversations and supporting patients and families through our clinical care, research, and community programs.

USC Brain Tumor Center Goes the Distance at the 2026 ABTA BT5K

On Saturday, November 7, 2026, the **USC Brain Tumor Center (BTC)** team, together with their families and friends, gathered in Santa Monica for the **American Brain Tumor Association's (ABTA) Breakthrough for Brain Tumors 5K (BT5K)**. Survivors, caregivers, healthcare professionals, and supporters walked and ran together to raise awareness and funds for brain tumor research and patient support.



The USC Brain Tumor Center returned as a **Sponsor**, supporting the ABTA's work to advance research and provide resources for patients and families. USC BTC representatives on the event's **Host Committee included Dr. Gabriel Zada, Dr. Aram Modrek, and Paola Mork**. **Dr. Zada** also served as a **guest speaker** at the event.

The BT5K gave our team an opportunity to connect with patients, families, and colleagues beyond the clinic and come together around a shared goal: improving care and quality of life for people affected by brain tumors. Funds raised through the event support the ABTA's research, patient education, and support services for individuals and families navigating a brain tumor diagnosis.

The USC Brain Tumor Center thanks everyone who joined our team, donated, or cheered us on. Your participation helped support research and resources for the brain tumor community. We look forward to joining the ABTA again in 2027 and welcoming more members of the USC community to walk and run with us.

Beyond the Diagnosis: Caring for the Whole Patient at the USC Brain Tumor Center

By Rebekah Ghazaryan, MSN, APRN, NP-BC; RN Clinical Coordinator - USC Brain Tumor Center | USC Pituitary Center



Rebekah Ghazaryan, MSN, APRN, NP-BC

When we think about advances in brain tumor care, we often focus on the latest surgical techniques, innovative treatments, and improvements in diagnostic imaging. While these advancements are essential, there is another equally important aspect of care that deserves attention: the overall well-being of the patient.

Behind every diagnosis is an individual with a life, a family, personal goals, and concerns that may not always be reflected in a medical chart or imaging study. For some patients, the greatest challenge may be managing physical symptoms or recovering from treatment. For others, it may be coping with uncertainty, changes in daily routines, or the emotional impact of living with a brain tumor.

At the USC Brain Tumor Center (BTC), we believe that comprehensive care should address both the medical complexities of a brain tumor and the personal experiences of those living with one.

This whole-person approach recognizes that successful care is not defined solely by clinical outcomes, but also by preserving quality of life, promoting independence, and ensuring patients and their families feel supported throughout their care.

Why Supportive Care Matters

Living with a brain tumor can present challenges that extend well beyond medical appointments and treatment decisions. Patients may experience fatigue, headaches, cognitive changes, sleep disturbances, or difficulty returning to their usual activities. Others may struggle with anxiety surrounding MRI results, uncertainty about the future, or the emotional adjustment that can accompany a serious medical diagnosis.

Supportive care focuses on identifying and addressing these challenges throughout the patient's journey. Rather than waiting until symptoms become overwhelming, this approach encourages early conversations, ongoing assessment, and individualized interventions.

Research increasingly supports this philosophy. The American Society of Clinical Oncology's 2024 clinical practice guidelines recommend integrating specialized palliative care early alongside cancer-directed treatment for patients with advanced cancer. Research has demonstrated benefits in quality of life, symptom management, and, in some settings, emotional well-being.

Importantly, supportive and palliative care do not mean that treatment is stopping. These approaches can complement ongoing medical and surgical care, helping patients maintain comfort, function, and quality of life.

Treating the Person, Not Just the MRI

In neuro-oncology, imaging studies provide essential information about tumor growth, treatment response, and disease stability.

Yet an MRI cannot tell us everything about how a patient is feeling or functioning.

A stable scan does not necessarily mean that a patient is free from fatigue, anxiety, memory difficulties, or other challenges.

Likewise, patients undergoing complex treatment may continue to lead meaningful and fulfilling lives with appropriate support.

A whole-person approach considers several important aspects of care:

- **Physical well-being:** Managing symptoms, treatment-related side effects, sleep, nutrition, and functional limitations.
- **Emotional health:** Recognizing anxiety, depression, fear of recurrence, and the emotional burden of living with uncertainty.
- **Cognitive and functional health:** Identifying changes in memory, concentration, mobility, and daily functioning, with rehabilitation support when appropriate.
- **Family and caregiver support:** Recognizing that loved ones often experience their own emotional, physical, and practical challenges.
- **Long-term quality of life:** Helping patients navigate recovery, surveillance, changes in independence, and the return to meaningful activities.

These considerations are important not only for patients with malignant tumors but also for individuals living with benign or slow-growing tumors who may require years of monitoring.

The Importance of Communication and Connection

One of the most valuable aspects of supportive care is open communication between patients and their healthcare team.

Patients sometimes hesitate to mention symptoms or emotional concerns because they believe these experiences are simply part of having a brain tumor.

However, even seemingly small changes can affect quality of life and may benefit from additional evaluation or support.

We encourage patients to share how they are feeling, what has changed since their last visit, and what matters most to them. Sometimes the most important question is not only, "How are your symptoms?" but also, "How are you managing in your everyday life?"

These conversations help guide individualized care and allow the healthcare team to better understand each patient's goals, priorities, and needs.

Supporting Patients and Families Through Every Stage

Brain tumor care is rarely a journey experienced by the patient alone. Spouses, children, parents, and other loved ones often play a vital role in providing emotional support, coordinating appointments, and helping with day-to-day responsibilities.

Recognizing and supporting caregivers is an important part of comprehensive care. Research suggests that structured supportive care interventions can help address caregiver distress and improve aspects of caregiver well-being, although outcomes vary across studies.

At BTC, our goal is to approach each patient's experience with clinical expertise, compassion, and an understanding that individual needs can evolve over time. Whether through symptom management, patient education, communication, or coordination with additional specialists and supportive services, the focus remains on providing thoughtful, patient-centered care.

A Message to Our Patients

As we enter the fall season, we want to remind our patients and families that your well-being matters at every stage of your care.

Your questions matter. Your concerns matter. Your quality of life matters.

A brain tumor may be part of your medical story, but it does not define who you are.

At the USC Brain Tumor Center, our commitment extends beyond the diagnosis. We strive to care for the whole person, recognizing that meaningful healthcare is not measured by imaging and treatment outcomes alone, but also by how well we support the individuals and families who place their trust in us.

Because caring for the brain means caring for the whole person.

References

1. Sanders JJ, et al. Palliative Care for Patients With Cancer: ASCO Guideline Update. Journal of Clinical Oncology. 2024;42(19):2336–2357.
2. National Cancer Institute. Palliative Care in Cancer. National Institutes of Health. https://www.cancer.gov/about-cancer/advanced-cancer/care-choices/palliative-care-fact-sheet.
3. National Cancer Institute. Supportive Care for Patients With Cancer. https://www.cancer.gov/about-cancer/treatment/side-effects.



This symposium is supported by an endowed lectureship known as **The Henry L. Jaffe, MD Annual Oration in Therapeutic Radiology**.

27th Annual Brain Tumor Update: A Collaborative Success Between USC and the Cleveland Clinic

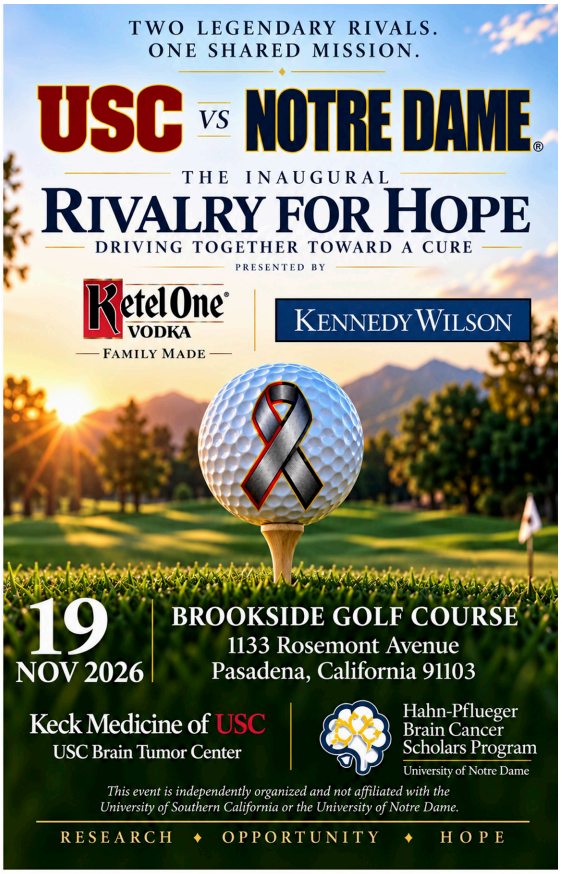
The **27th Annual Brain Tumor Update and 16th Annual Symposium on Brain Metastases and Spine Tumors** was held on November 7–8, 2026, at the **InterContinental Los Angeles Downtown**, jointly provided by the **Keck School of Medicine of USC** and **Cleveland Clinic**. The two-day meeting brought together faculty from both institutions and invited experts to examine advances in the diagnosis, treatment, and multidisciplinary management of brain and spinal tumors.





The program covered **gliomas, meningiomas, pituitary tumors, brain metastases, and spinal tumors**, alongside developments in neuroimaging, surgery, radiation therapy, and medical treatment. A dedicated session examined the multimodal management of pituitary tumors. Presentations also addressed molecular diagnostics, epigenetics, cellular therapy, and immunotherapy for gliomas, connecting emerging research with questions in clinical practice.

The meeting continued the educational partnership between USC and Cleveland Clinic, with a focus on helping clinicians evaluate new evidence and coordinate care for patients with complex brain and spinal tumors.



USC vs. Notre Dame: The Inaugural Rivalry for Hope Golf Tournament

For a century, USC and Notre Dame have been fierce rivals. On **November 19, 2026**, the two communities will come together for a shared cause: supporting brain cancer research.

The **inaugural Rivalry for Hope Charity Golf Tournament** will take place at **Brookside Golf Course in Pasadena**, beside the Rose Bowl, followed by an awards ceremony and dinner. Presented by **Ketel One Vodka** and **Kennedy Wilson**, the event welcomes alumni, fans and neighbors for a day of golf and giving.

All proceeds will benefit brain cancer research at the **Keck Medicine of USC Brain Tumor Center** and the **Molly Hahn and Rebecca Pflueger Memorial Fund** through **Notre Dame's Harper Cancer Research Institute**.

By raising awareness and funds for brain cancer research, we can help advance the work that may one day lead to a cure.

We look forward to bringing both communities together for this inaugural event and hope it marks the beginning of an annual tradition.

Two legendary rivals. One shared mission. Driving together toward a cure.

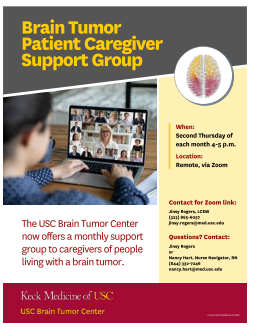
To learn more, register, donate or contact the organizers, visit **rivalryforhope.com**.

This event is independently organized and is not affiliated with the University of Southern California or the University of Notre Dame.

Supporting Our Brain Tumor Community

Brain Tumor Caregiver Support Group

Our Brain Tumor Caregiver Support Group, now in its fourth year, has been a haven for caregivers seeking support for the specific needs of those caring for loved ones with brain tumors. In a recent survey, all 10 group members who responded reported feeling a sense of community through their participation. With expertise from our brain tumor physicians, physical and occupational therapists, nurses, and others, group members also receive education on how to best care for their loved ones. We hope this well-rounded experience provides group members with practical and emotional tools to support them in their caregiving roles. **For those interested in joining, please contact Jinsy Rogers, LCSW, at Jinsy.Rogers@med.usc.edu.**



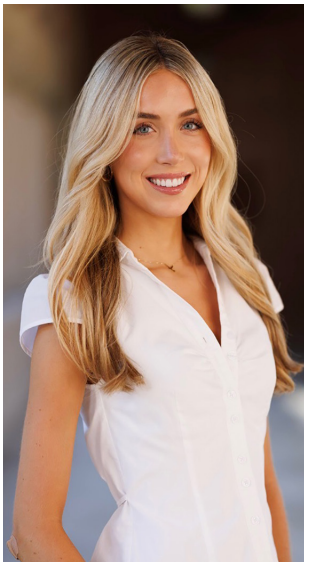
With Gratitude



Nicole Measles

As we reflect on this year, we extend our heartfelt thanks to our donors, advocates, and friends whose generosity continues to propel the mission of the USC Brain Tumor Center. Your philanthropy helped us to expand patient and caregiver support programs, strengthen advocacy efforts, and advance pioneering research in areas such as meningioma biology, precision medicine, and novel treatment approaches. Together, we are creating real momentum toward better treatments, improved outcomes, and renewed hope for patients and families affected by brain tumors. Thank you for believing in this mission and for helping make every breakthrough, every discovery, and every patient success story possible.

Willa Chandler: Student Leader and Brain Tumor Advocate



As a member of the **USC Brain Tumor Center Advisory Council**, Willa Chandler is helping advance awareness, fundraising, and community engagement for patients and families affected by brain tumors. Inspired by her family's experience with glioblastoma, she launched a fundraising campaign during Brain Tumor Awareness Month to support research and patient care at the Brain Tumor Center at Keck Medicine of USC.

Willa is currently an undergraduate student in the USC Sol Price School of Public Policy, studying Real Estate Development with a minor in Business Finance and serving in several campus leadership roles. She is Director of Mentorship for the Trojan Real Estate Association and Vice President of University Women in Real Estate (U-WIRE), where she promotes mentorship, professional development, and leadership opportunities for fellow students.

Chandler's growing impact extends beyond campus, as she is helping organize the **2026 Rivalry for Hope golf fundraiser** benefiting brain cancer research at both the **USC Brain Tumor Center** and **Notre's Dames Harper Cancer Research Institute**. Through her advocacy and leadership, she exemplifies how USC students can make a meaningful difference in the fight against brain cancer.

SELECTED PUBLICATIONS



Modern Radiosurgery Approaches for Brain Metastases. ***Chau B, Chang EL, Garsa A.*** *Cancer J. 2026 Jan-Feb 01;32(1):e0804. doi: 10.1097/PPO.0000000000000804.*

Brain metastases affect up to 30% of cancer patients and can cause significant neurological effects. Treatment of brain metastases requires a multidisciplinary approach with surgery, radiation modalities, and systemic therapy all playing a specialized role in its management. Stereotactic radiosurgery (SRS) is a specialized type of highly conformal radiation therapy, allowing for high doses to be focally delivered to the tumor, while causing a sharp dose falloff to the surrounding normal tissues.

SRS is utilized for both intact brain metastases and postoperative surgical resection cavities. SRS has shown good local control, similar survival outcomes to whole brain radiation therapy (WBRT), and superior preservation of neurocognition compared with WBRT. Ongoing prospective studies are investigating the use of SRS in the setting of patients with 5 or more brain metastases, preoperative SRS, and the timing of administration of SRS with respect to systemic therapy.



The role of stereotactic radiosurgery in the management of vestibular schwannoma in octogenarians: an international multi-institutional study. ***Abou-Al-Shaar H, Albalkhi I, Bin-Alamer O, Head JR, Mallela AN, Wegner RE, Kite T, Mahase SS, Nolan K, Zacharia BE, Bailey D, Lee CC, Yang HC, Bowden GN, Hajikarimloo B, Lin M, Yu C, Chang E, Amezquita-Contreras C, Blanco AI, Esquenazi Y, Kumar P, Palmer JD, Franzini A, Picozzi P, Cotrufo PP, Douri K, Mathieu D, Grover P, Williams SC, Sinha S, Comon C, Jalal A, Sirajudeen N, Markov M, Kılıç T, Rustamov R, Kılıç D, Harary PM, Hori YS, Park DJ, Chang SD, Düzkalir AH, Peker S, Urgošík D, Liščák R, Warnick RE, Tripathi M, Bhatta R, Kumar N, Andrade A, Mureb M, Bernstein K, Martínez Moreno N, Martínez-Álvarez R, Zada G, Sheehan JP, Kondziolka D, Niranjan A, Hadjipanayis CG, Lunsford LD.*** *J Neurosurg. 2026 Aug 7;145(5):1344-1351. doi: 10.3171/2026.2.JNS252486.*

The incidence of vestibular schwannoma (VS) diagnosis among octogenarians has increased due to longer life expectancy and greater MRI accessibility and utilization. Stereotactic radiosurgery (SRS) offers a safe management strategy for these patients.

The authors retrospectively analyzed the data of octogenarians with VS managed with SRS across 27 institutions, assessing clinical and audiological outcomes, including survival rates, tumor control responses, complications, and posttreatment functional outcomes.

Single-fraction SRS is a safe and effective management modality for octogenarians with VS, providing durable tumor control with minimal morbidity.

Cedars Sinai · Children's Hospital Los Angeles · City of Hope · Keck Medicine of USC · Pacific Neuroscience Institute · UC Irvine Health School of Medicine · David Geffen School of Medicine at UCLA · UC San Diego School of Medicine



CLINICAL TRIALS:
Now Enrolling at the
USC Brain Tumor Center

Have you or someone you know recently been diagnosed with a brain tumor? Choosing the right treatment can be challenging. To find out more about our breakthrough treatments, contact our specialized brain tumor team at (844) 33-BRAIN (844-332-7246) or email David.Tran@med.usc.edu.



GammaTile Center of Excellence

This designation recognizes the institution's exceptional expertise in the Gamma**Tile** procedure. Gamma**Tile** is an innovative radiation source that is placed during surgery to deliver focused, immediate radiation. It is designed to protect healthy tissue and minimize radiation side effects, including hair loss. Gamma**Tile** is available for advanced brain tumors including glioblastoma, meningioma, and metastatic brain tumors.

	Trial	Interventions	Phase
	Glioblastoma		
1	DB107-RRV, DB107-FC, and Radiation Therapy With or Without Temozolomide (TMZ) for High Grade Glioma	• DB107-RRV + DB107-FC + standard therapy	Phase 1/2A
2	A Phase 1/2 Study of Selinexor and Temozolomide in Recurrent Glioblastoma	• Selinexor + Temozolomide • Temozolomide	Phase 1/2
3	Randomized Study of Resection and GammaTile® Followed by Concurrent External Beam Radiation Therapy (EBRT) and Temozolomide (TMZ) and Adjuvant TMZ Versus Standard of Care in Newly Diagnosed Glioblastoma (GBM)	• Resection and GammaTile® followed by concurrent external beam radiation therapy (EBRT) and Temozolomide (TMZ) and adjuvant TMZ versus standard of care	Phase 3
4	NRG-CC017: A Randomized Phase III Study Comparing Temporally-modulated Pulsed Radiation Therapy (TMPRT) Versus Standard Radiation Therapy with Temozolomide for Adults with Newly Diagnosed MGMT-unmethylated Glioblastoma	• Temporally-modulated pulsed radiation therapy (TMPRT) versus standard radiation therapy with temozolomide	Phase 3
	Coming Soon		
5	RTOG-3523/CAAA601A1US13R: A Multicenter, Randomized, Open-Label, Phase II Study of 177Lu-DOTATATE (Lutathera) in Adults with Progressive Intracranial Grade 1-3 Meningioma	• Lutathera	Phase 2

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We Are the USC Brain Tumor Center

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