



PACIFIC BRAIN TUMOR CENTER AT PACIFIC NEUROSCIENCE INSTITUTE

Our center experts treat all types of benign and malignant brain and skull base tumors. With innovative minimally invasive keyhole surgical approaches, novel targeted neuro-oncological treatments, stereotactic radiosurgery and clinical trials, we provide precision therapies aimed at safely and effectively transforming and sustaining our patients' lives.

PATIENT-CENTERED FOCUS: A multidisciplinary team approach providing tailored diagnostic and treatment plans.

EXPERIENCE, INNOVATION & RESEARCH: One of the largest series of keyhole and endoscopic surgeries world-wide; extensive academic publications; ongoing clinical trials and brain tumor genomics research.

TECHNOLOGY: State-of-the-art operating suite dedicated to endoscopic and keyhole neurosurgery.

CONSISTENT QUALITY CARE: Our physicians practice at award-winning Providence hospitals in Santa Monica and the South Bay.

PHYSICIAN EDUCATION: Regular symposia in brain tumor management and minimally invasive surgical techniques.

MINIMALLY INVASIVE "KEYHOLE" NEUROSURGERY

We incorporate state-of-the-art technology with proven surgical experience to make tumor removal safer, less invasive and more effective. Most brain, pituitary and skull base tumors can now be removed by a "keyhole" approach. These include the endonasal endoscopic approach (via the nose), the supraorbital "eyebrow" craniotomy, the retromastoid craniotomy (behind the ear) as well as other minimally invasive routes.

For an appointment or second opinion:

310-582-7450 | 424-212-5361 | PacificBrainTumor.org

DISORDERS WE TREAT

BRAIN & SKULL BASE TUMORS

- Chordoma
- Colloid cyst
- Craniopharyngioma
- Epidermoid cyst
- Gliomas (astrocytoma, ependymoma, glioblastoma, oligodendroglioma)
- Hemangioblastoma
- Intraventricular tumors
- Meningioma
- Metastatic brain tumors
- Olfactory neuroblastoma & other sinonasal cancers
- Schwannoma (trigeminal & acoustic)

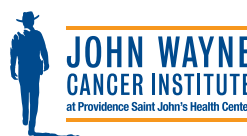
SPINAL CORD TUMORS

INTERNATIONAL PATIENTS

For patients living outside the United States, our physicians can provide a prompt review of imaging and other tests. We can suggest a recommendation about the optimal treatment options with no charge for such initial evaluations and preliminary reviews.

**PACIFIC
NEUROSCIENCE
INSTITUTE®**

**Saint John's
Health Center**
at PROVIDENCE Health & Services



PROVIDENCE
Little Company of Mary
Medical Center
Torrance



PACIFIC BRAIN TUMOR CENTER AT PACIFIC NEUROSCIENCE INSTITUTE

NEURO-ONCOLOGICAL TREATMENT OF BRAIN TUMORS & CLINICAL TRIALS AVAILABILITY

We are committed to improving the lives of patients with primary and metastatic brain cancers with our personalized approach to patient care. For many patients with aggressive brain malignancies, multi-modality treatments are typically needed after minimally invasive surgery. The optimal treatment is determined through a multidisciplinary team approach aimed at achieving maximal survival while maintaining quality of life. In addition, PNI has a large portfolio of advanced clinical trials for patients with glioblastomas and other brain cancers including metastatic brain tumors. Depending upon the specifics of a patient's tumor type, and prior treatments, the use of standard therapies, clinical trials or a combined approach of standard therapies followed by clinical trial enrollment may offer the best treatment option.

GENOMIC PROFILING

Using Next Generation Sequencing, microRNA profiling, and proteomic analyses, detailed biomarker analysis is routinely performed on many of our patients. These techniques allow use of specific targeted treatments based on the tumor molecular profile for each patient, giving the greatest chance of achieving tumor remission and hopefully a cure. In some instances, what we learn from tumor sequencing will lead to an established treatment and in others it will lead to clinical trial options.



DANIEL F. KELLY, MD
DIRECTOR, PACIFIC NEUROSCIENCE INSTITUTE

Dr. Kelly is an internationally recognized neurosurgeon with a focus in the field of endoscopic and keyhole brain surgery. He treats a wide range of tumors including pituitary adenomas, meningiomas, craniopharyngiomas, chordomas and metastatic brain tumors. Dr. Kelly is the recipient of the Patients' Choice Award and has been awarded the southern California SuperDoctor distinction 11 years in a row. pacificneuro.org/kelly



GARNI BARKHOUDARIAN, MD
CO-DIRECTOR, PITUITARY DISORDERS CENTER

Dr. Barkhoudarian is a neurosurgeon specializing in skull base and minimally invasive endoscopic surgery, particularly pituitary and parasellar tumors, intra-ventricular brain tumors, trigeminal neuralgia, hemifacial spasm, other cranial nerve syndromes and hydrocephalus. He is director of the Pacific Hydrocephalus Center and Pacific Facial Pain Center and director of Providence Saint John's Skull Base and Endoscopic Microdissection Laboratory. pacificneuro.org/barkhoudarian



SANTOSH KESARI, MD, PhD
DIRECTOR, NEURO-ONCOLOGY

Dr. Kesari is a world-renowned neuro-oncologist with extensive experience treating all types of malignant brain tumors with particular emphasis on glioblastomas. A physician-scientist and recipient of Castle Connolly's TopDoctor Award, he and his team conduct leading-edge research and clinical trials in immunotherapy and biomarker-based therapies. pacificneuro.org/kesari



WALAVAN SIVAKUMAR, MD
DIRECTOR, NEUROSURGERY, PNI-SOUTH BAY

Dr. Sivakumar specializes in treating brain, skull base, and pituitary tumors, aneurysms, cavernous malformations, arteriovenous malformations, carotid stenosis and spine issues, utilizing advanced neuroimaging and microsurgical techniques to minimize collateral damage to the brain and other neurological structures. pacificneuro.org/sivakumar

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