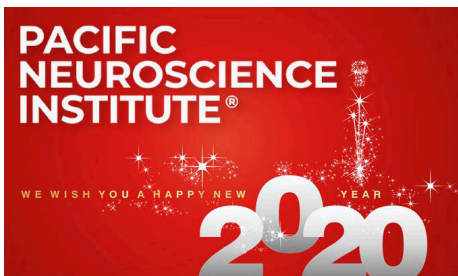


# BRAIN MATTERS NEWSLETTER

THINK NEURO. THINK PNI.

PRESENTED BY

**PACIFIC NEUROSCIENCE INSTITUTE®**



## BEGINNING A NEW DECADE AT PACIFIC NEUROSCIENCE INSTITUTE

### Plans for 2020 and Beyond

It feels like science fiction but here we are at the year 2020. At Pacific Neuroscience Institute we are ready for the new decade with personalized care for all our patients.

Over the past year there have been exciting developments at the Pacific Brain Health Center (PBHC) for middle aged and older adults. As human longevity increases, it is important that we protect our most important asset, the brain.

### What's Happening at the Pacific Brain Health Center

- The PREVENTION clinical trial is well underway assessing the impact of combined physical and cognitive

exercise for people who have early symptoms of [Alzheimer's disease](#).

- The Cognitive Fitness (CogFit) Studio completed a pilot beta-test class and is available to PREVENTION clinical trial participants as well as patients seeking clinical care at the PBHC for brain health and memory fitness.

### New Addiction Medicine Services at PBHC this Spring

40 million Americans aged 12 or older, that's 1 in 7, have a substance problem. To help, we will be unveiling our Addiction Medicine services at PBHC this Spring for the assessment, treatment and prevention of addiction and substance use issues including problems with drugs, alcohol and prescription medications across all age groups.

### New Cancer Psychiatry (Psycho-oncology) Services

No one should have to go through cancer alone. Our new cancer psychiatry services at Providence Saint John's Health Center focus on patients and their loved ones, providing support and resources as they are confronted with a cancer diagnosis and its treatment.

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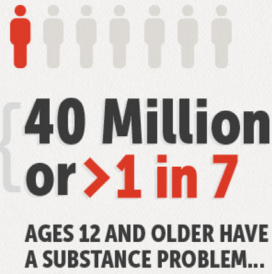
## PACIFIC NEUROSCIENCE INSTITUTE®

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[5215 Torrance Blvd, #300](#)  
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## ADDICTION PREVALENCE

40 million Americans ages 12 and older—or more than 1 in 7 people—abuse or are addicted to nicotine, alcohol or other drugs. This is more than the number of Americans with heart conditions (27 million), diabetes (26 million) or cancer (19 million).



...THIS IS MORE THAN THE NUMBER OF AMERICANS WITH:



Source: Center on Addiction



## PNI-South Bay Opens New Clinics at Advanced Care Center

Pacific Neuroscience Institute expanded its clinical space associated with [Providence Little Company of Mary Medical Center Torrance](#) in July 2019. The new state-of-the-art clinics are located at [5215 Torrance Blvd, Suite 300](#).

PNI-South Bay medical experts provide services in [brain tumor](#), [pituitary disorders](#), [movement disorders](#) and [spine care](#) at this new location. Stroke & aneurysm specialists continue to see patients at the original location at [4201 Torrance Blvd, Suite 560](#).

### Clinic Expansion Key Services

Informally called the Breeze building as it was the home for more than 40 years of the Daily Breeze newspaper, the Advanced Care Center was built by Providence Little Company of Mary Medical Centers. The new \$80 million, 106,000-square foot outpatient clinic expansion houses key services including City of Hope's multi-disciplinary cancer center, an Orthopedic and Spine Institute and a Women's Breast Center, and features 20 infusion center bays, two endoscopy suites, 46 exam rooms and five surgical suites. The 3-story building opened its doors to the public in August 2018.

The executive architect and designer of tenant improvements, Cuningham Group Architecture, and exterior building architects, CallisonRTKL were responsible for the overall design. "We worked closely with Providence and its end users — the patients, staff and

### PNI's Ongoing Commitment To Care

Taking care of the challenging diseases of the brain is our top priority. With leading-edge standard therapies as well as novel clinical trials and protocols, we have been able to care for patients with conditions such as stroke and brain trauma, Alzheimer's disease, [Parkinson's disease](#), [pituitary disorders](#), and [brain tumor](#). In many cases, our multidisciplinary teams are able to see our patients in a single visit.

It is our honor to serve the Santa Monica community and beyond.

For more information, please check out [Pacific Neuroscience Institute](#) or contact us at [310-582-7640](tel:310-582-7640).

By [Daniel F. Kelly, MD](#)  
*Dr. Kelly is the Director of the Pacific Neuroscience Institute in Santa Monica, CA. Considered to be one of the top neurosurgeons in the US, Dr. Kelly is internationally recognized in the field of minimally invasive keyhole surgery for brain, pituitary and skull base tumors. He continues to focus his efforts on advancing innovative treatments for patients, providing fellowship training in minimally invasive neurosurgery, and patient education and support.*



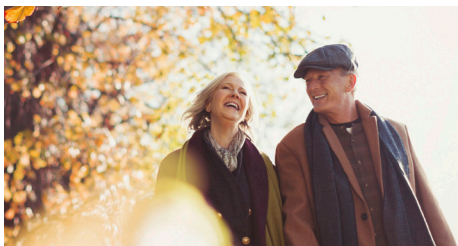
### PNI now has over 30 physicians taking care of patients with a wide range of neurological conditions.

With clinics at Providence Saint John's Health Center and Little Company of Mary Torrance, our nationally and internationally recognized experts are happy to see routine and urgent referrals.

For more information:  
[PacificNeuro.org](http://PacificNeuro.org) | [310-582-7640](tel:310-582-7640)

visitors – to make the patient/provider experience as ‘homey’ as possible,” Cunningham Group Senior Project Manager Amine Khemakhem said in a news release. “The center extends our approach to medical design, making it more like a comfortable home or hotel, reducing an ‘institutional’ feeling as much as possible.”

For more information, or to schedule an appointment at PNI-South Bay, call [424-212-5361](tel:424-212-5361).



## NEW CHORDOMA CLINICAL TRIAL AT PACIFIC BRAIN TUMOR CENTER

The approved lung cancer drug pemetrexed is at the center of a [new clinical trial](#) at Providence Saint John’s Health Center’s [Pacific Brain Tumor Center](#) for patients diagnosed with chordoma, a rare, slow-growing cancer found in the bones at the base of the skull and the spine that is difficult to treat.

Two chordoma patients who received the drug – approved by the FDA for lung cancer only – showed promising results with reductions in the sizes of their tumors.

[Chordoma](#) is an extremely rare cancer, diagnosed in just one in 1 million people per year, and can affect individuals of all ages. The standard of care is surgery and/or radiation, but tumors tend to recur after treatment and it also can spread or metastasize to other parts in the body. There are currently no approved drugs for the treatment of chordoma, which is why [clinical trials](#) that

test promising new therapies are important.

[Santosh Kesari, MD, PhD](#), the principal investigator of the trial, is now recruiting chordoma patients who will be administered pemetrexed intravenously every three weeks. Pemetrexed typically is prescribed to lung cancer patients as part of a maintenance plan following initial treatment.

Dr. Kesari, director of neuro-oncology at the Pacific Neuroscience Institute, found through molecular profiling there is a certain protein that may be able to predict response to pemetrexed treatment.

“We have discovered a biomarker in chordoma samples that correlated with response in chordoma patients treated with pemetrexed,” said Dr. Kesari. “To date, two of two patients treated with pemetrexed had dramatic shrinkages of metastatic chordoma tumors. We are excited to be partnering with Eli Lilly and the Chordoma Foundation to bring this new approach to the clinic.”

The Pacific Brain Tumor Center is partnering with the [Chordoma Foundation](#), an advocacy group which, among other services, supports well-justified clinical trials.

“Historically, treatment options for patients with residual, recurrent, or advanced chordoma have been limited and inadequate,” said Josh Sommer, co-founder and executive director of the Chordoma Foundation. “The pemetrexed trial is a promising step forward in identifying more effective treatments for chordoma patients.”

[Eli Lilly and Company](#), the maker of pemetrexed, is providing the drug and funding for the study. The trial opened in September and will enroll up to 15 patients. Positive results may spur the expansion of the trial beyond the single location in Santa Monica.

“By building upon important clinical observations and applying discoveries from laboratory research, we hope to learn more about a potential new strategy to improve outcomes for patients with chordoma,” said Tiffany Juarez, PhD, program manager for translational research.

### Trial Enrollment

Adults 18 years and older with chordoma are invited to participate. For more information and to enroll into the trial, call the neuro-oncology clinical trials team at [310-829-8265](tel:310-829-8265).

### About Pacific Brain Tumor Center

The Pacific Brain Tumor Center is a Center of Excellence at the Pacific Neuroscience Institute, with clinics at Providence Saint John’s Health Center in Santa Monica and Providence Little Company of Mary Medical Center Torrance. The Brain Tumor Center, in partnership with the John Wayne Cancer Institute at Providence Saint John’s Health Center, provides comprehensive care for patients with all types of brain tumors, including benign and malignant brain tumors, skull base tumors and metastatic brain tumors that arise from cancers elsewhere in the body. Physicians at the center are leaders in state-of-the-art procedures to diagnose and treat tumors.

### About Providence St. Joseph Health

Providence St. Joseph Health is a national, not-for-profit Catholic health system comprising a diverse family of organizations and driven by a belief that health is a human right. With 51 hospitals, 829 physician clinics, senior services, supportive housing and many other health and educational services, the health system and its partners employ more than 119,000 caregivers serving communities across seven states – Alaska, California, Montana, New Mexico, Oregon, Texas and Washington with system offices based in Renton, Wash., and Irvine, Calif.





## Professional Spotlight

### Dr. Garni Barkhoudarian, Neurosurgeon and Teacher

[Garni Barkhoudarian, MD, FAANS](#), is the Co-Director of the Pituitary Disorders Center and the Director of the Adult Hydrocephalus and Facial Pain Centers at Pacific Neuroscience Institute (PNI). As a highly skilled neurosurgeon, Dr. Barkhoudarian uses [minimally invasive endoscopic surgery](#) to treat his patients with a focus on improved outcomes with rapid recovery.

From a young age Dr. Barkhoudarian was determined to become a physician. “The first time I saw a living, glistening, pulsating brain, I was hooked,” he says. “I gravitated to the complex anatomy of the brain, its intricate neural networks conferring consciousness and complex emotions, and vulnerability to external forces. Patients

with neurosurgical disorders pose a certain challenge on all levels – from diagnosis to post-operative recovery.”

To address the unique issues involved in treating patients with brain and pituitary tumors, multiple SuperDoctor awards recipient, Dr. Barkhoudarian says, “Patients with both [benign and malignant brain tumors](#) can be very challenging to treat. There are numerous non-surgical considerations including endocrine dysfunction and hormone secretion for pituitary tumors and cancer spread / tumor burden for malignant disease. Surgery plays an important role for the treatment of these tumors, but often is combined with adjuvant therapy including stereotactic radiosurgery and targeted chemotherapy. In recent years, a better understanding of the genetics and immune system interaction of cancer has allowed for more targeted, personalized care for these patients.”

Part of what Dr. Barkhoudarian does is teach others about neurosurgery. His experience and expertise as a neurosurgeon translate directly into his involvement in education.

In 2012, he established the Minimally Invasive and Endoscopic Microdissection Laboratory at the John Wayne Cancer Institute. As director, he trains clinical and international fellows on the nuances of surgical anatomy.

In 2019, the lab was substantially updated and renamed the PNI/JWCI Multidisciplinary Neuroanatomy and Surgical Skills Laboratory.

“The brain is a fascinating, delicate and complex organ. The only way that a surgeon can hone their craft is by practicing. At the lab, our fellows can actually see and analyze the structures that they will be concentrating on in the operating room. Teaching is a critical component of academic neurosurgery. Not only does this improve the students’ understanding of the topic, but it forces the teacher to stay ahead of the curve and advance his expertise as well. I find that I learn more when teaching a subject than merely reading an article or listening to a lecture. I hope to instill this passion in our trainees as well.”

More on the Brain Tumor Center’s team at [PacificBrainTumor.org](#)



## NEW MEDICAL ILLUSTRATION INTERNSHIP

Pacific Neuroscience Institute wants to mint more neuro experts! Check out our offerings to train surgeons, neurologists, neuro-oncologists and research scientists as well as a new medical illustrator opportunity.

Join us in sunny Santa Monica!

## UPCOMING EVENTS

- **Saturday Feb 8th, 9am - 2pm**  
[Providence Booth at Playa Vista Farmers Market](#)

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