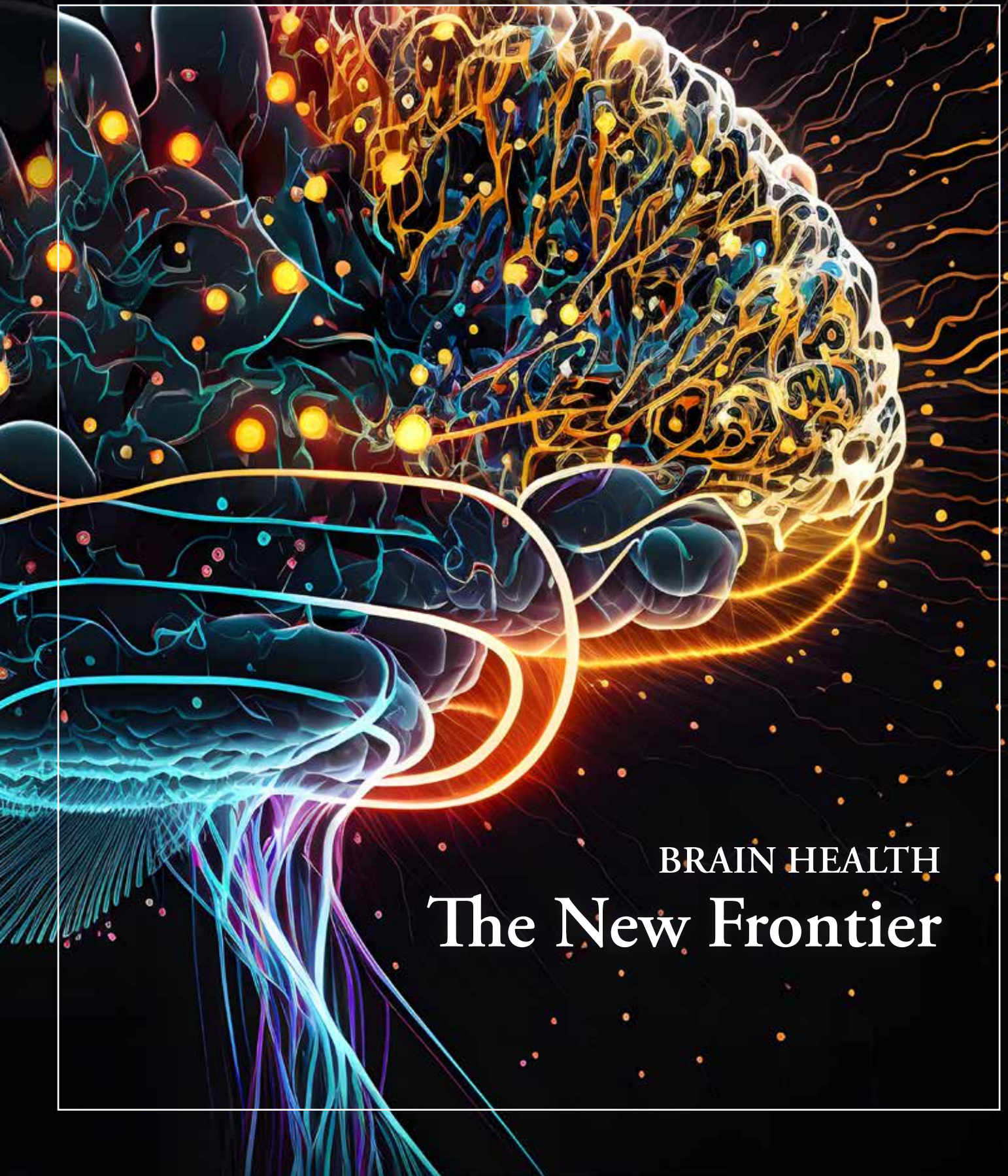


2023 IN REVIEW &  
LOOKING FORWARD IN 2024

PACIFIC  
NEUROSCIENCE  
INSTITUTE®



BRAIN HEALTH  
**The New Frontier**



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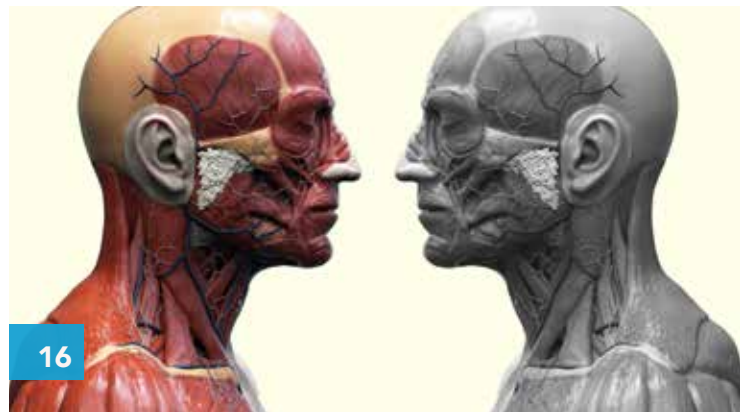
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# CONTENTS

- 4 Centers of Excellence
- 5 PNI By the Numbers
- 6 Locations
- 7 About PNI
- 8 Brain Health
- 10 Brain Wellness & Lifestyle
- 11 Treatment & Research In Psychedelics
- 12 Brain Tumors & Pituitary Disorders
- 14 Patient Highlight:  
From Rare Brain Tumor to Law School:  
A Young Woman’s Journey
- 15 Stroke & Neurovascular
- 15 Movement Disorders
- 16 Eye & ENT
- 16 Facial Nerve Disorders
- 17 Patient Highlight:  
Pediatric Cochlear Implants for  
Hearing Restoration
- 18 Hydrocephalus & Facial Pain
- 18 Multiple Sclerosis
- 19 Spine Health
- 19 PNI Accolades
- 20 PNI Foundation & Community Outreach
- 21 2023 Donor Wall
- 22 Publications



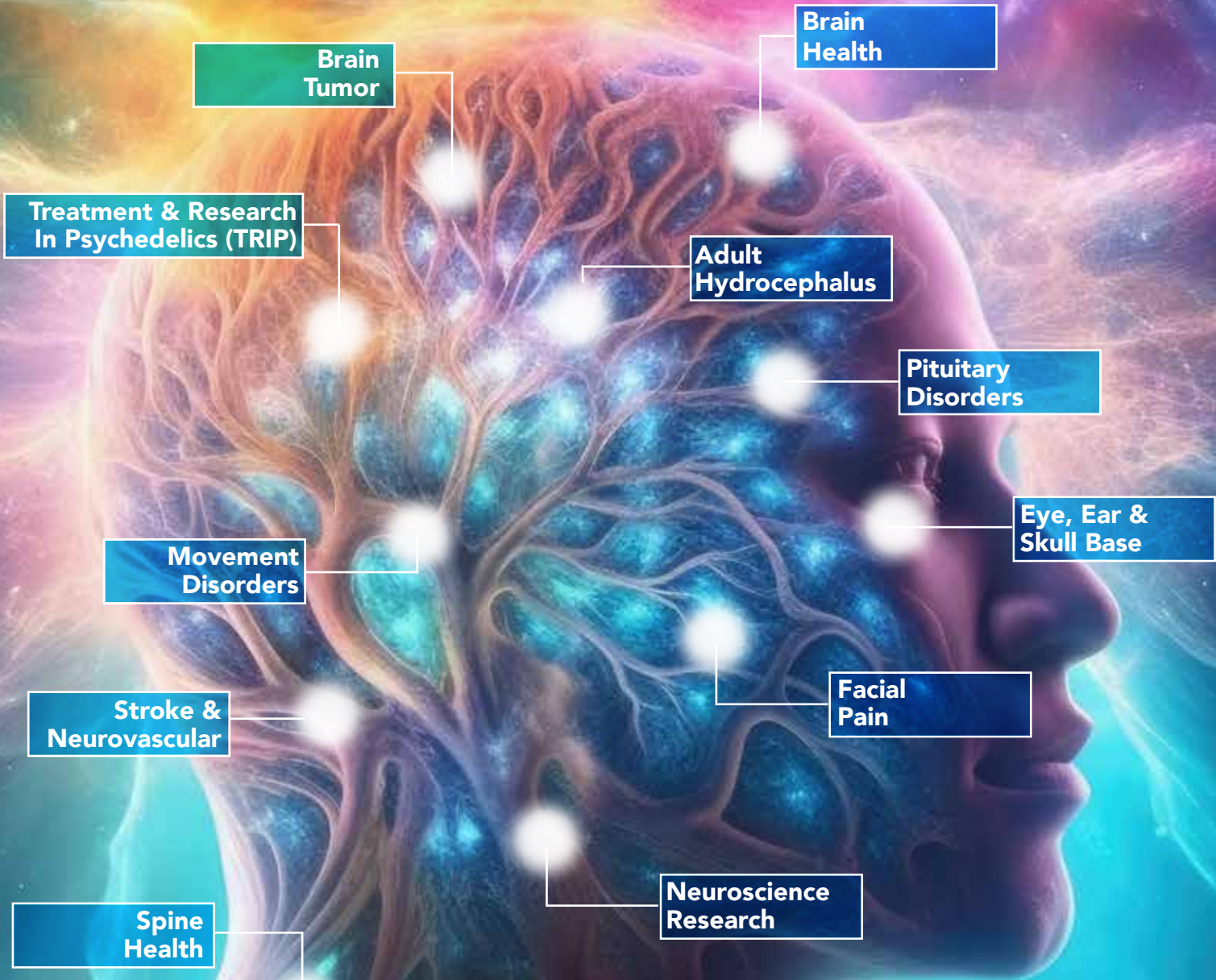

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## Editorial Team

Zara Jethani, MS, MBA Director, Marketing and Communications, Pacific Neuroscience Institute

Daniel Kelly, MD, Co-Founder and Director, Pacific Neuroscience Institute

# PNI's Centers of Excellence NEUROSCIENCE AT ITS BEST



# PACIFIC NEUROSCIENCE INSTITUTE 2023 BY THE NUMBERS

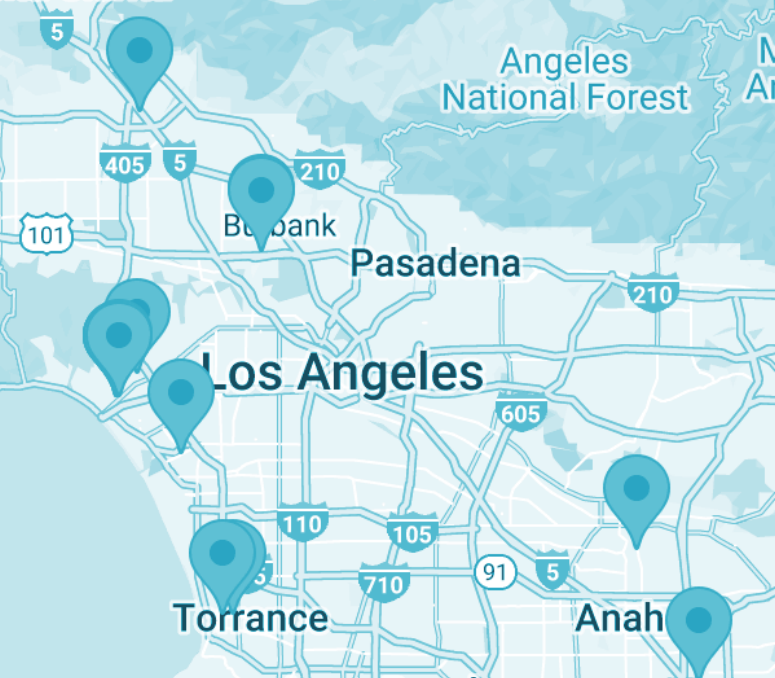
PNI	<b>11</b> Centers of Excellence	<b>26</b> Advanced Practice Providers	<b>23</b> Affiliate Providers	<b>7</b> Hospital Affiliates
	<b>39</b> PNI Medical Group Faculty	<b>116</b> Providence Medical Group Staff	<b>16</b> PNI Foundation Staff	<b>17</b> Locations

Neuroscience Clinical Care	<b>69,435</b> Clinic Visits (In-person & Virtual) <i>+8% growth over 2022</i>	<b>2,803</b> Medical Group Surgical Procedures <i>+31% growth over 2022</i>	<b>1,301</b> NIR/Neurovascular Procedures <i>+39% growth over 2022</i>
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Patient Support	<b>18</b> Community Events	<b>9</b> Community Partners	<b>44</b> Support Groups	<b>8</b> Webinar Sessions
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Publications, Education & Training	<b>42</b> Peer-Reviewed Publications	<b>48</b> Neuroanatomy Formal Dissections	<b>16</b> Medical Assistants-In-Training	<b>6</b> Neurosurgery Fellows (US & International)
		<b>51</b> CME Courses	<b>7</b> Nurse Practitioner Students	<b>3</b> Neuroscience Interns

PNI Foundation & Outreach	<b>\$12.5M</b> Raised	<b>296,822</b> Podcast All-Time Downloads	<b>46,469</b> Social Media Followers	<b>1.3M</b> Website Users
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## PNI ALL ACROSS THE SOUTHLAND

# Locations

### CLINICS

- 2125 Arizona Ave, Santa Monica, CA 90404
- 2200 Santa Monica Blvd, Santa Monica, CA 90404
- 1301 20th St, #150, Santa Monica, CA 90404
- 1301 20th St, #300, Santa Monica, CA 90404
- 1301 20th St, #540, Santa Monica, CA 90404
- 11645 Wilshire Blvd, #600, Los Angeles, CA 90025
- 4201 Torrance Blvd, #520, Torrance, CA 90503
- 5215 Torrance Blvd, #300, Torrance, CA 90503
- 181 S. Buena Vista St, Burbank, CA 91505
- 501 S. Buena Vista Ave, Burbank, CA 91505
- 11550 Indian Hills Rd, #261, Mission Hills, CA 91345
- 12555 W. Jefferson Blvd, #303, Playa Vista, CA 90066

### PNI/PROVIDENCE STROKE CENTERS

- Saint John's Health Center, Santa Monica, CA 90404
- Little Company of Mary Medical Center, Torrance, CA 90503
- Saint Joseph Medical Center, Burbank, CA 91505
- Holy Cross Medical Center, Mission Hills, CA 91345

### NEURO-ONCOLOGY CLINICS

- 2121 Santa Monica Blvd, Santa Monica, CA 90404
- 2125 Arizona Ave, Santa Monica, CA 90404
- 5215 Torrance Blvd, #300, Torrance, CA 90503
- 181 S. Buena Vista St, Burbank, CA 91505
- 2151 N. Harbor Blvd, Fullerton, CA 92835
- 27700 Medical Center Rd, Mission Viejo, CA 92691
- 1000 W. La Veta Ave, Floor 1, Orange, CA 92868

### PNI FOUNDATION

- 1301 20th St, #100, #250, #300A, Santa Monica Blvd, Santa Monica, CA 90404





## ABOUT

# Pacific Neuroscience Institute

Pacific Neuroscience Institute® is a unique medical institute focused on neuroscience clinical care and research, established in 2015 and in partnership with Providence Health since 2017.

Our overarching mission is threefold:

1) To deliver patient-centric holistic care for challenging neurological and mental health conditions, 2) To advance innovative treatments and care paradigms through clinical research and trials and 3) To train the next generation of clinician neuroscientists and educate the public-at-large on neuroscience advances.

Pacific Neuroscience Institute is comprised of the PNI Medical Group, through which our experienced faculty provide medical care, and our nonprofit PNI Foundation, which is dedicated to supporting faculty research and educational programs through philanthropy, in collaboration with the Saint John's Health Center Foundation led by President and CEO Sheryl Bourgeois, PhD.

We have experienced substantial growth and in 2024 our team will comprise of over 40 physicians across ten specialties, four clinical psychologists, three nurse practitioners, two audiologists and two optometrists. Our ten Clinical Centers of Excellence, along with related programs, offer leading-edge multidisciplinary care that spans the neurosciences and

mental health spectrum. We are pleased that our patients can receive state-of-the-art care under our comprehensive multispecialty umbrella approach.

While our primary hub remains at Providence Saint John's Health Center in Santa Monica, PNI clinicians extend their expertise to 17 Providence outpatient clinics across LA and Orange Counties, as well as four Providence Southern California medical centers. This includes a prominent PNI satellite at Little Company of Mary Medical Center in Torrance and an expanding presence at Saint Joseph Medical Center in Burbank and Holy Cross Medical Center in Mission Hills. Notably, all four medical centers are recognized as Comprehensive Stroke Centers, with neurointerventional services provided by PNI faculty.

In 2023, our PNI Medical Group had over 69,000 clinic visits, and performed a total of over 4,100 surgical and neurointerventional procedures.

Michael Ricks, Chief Executive at Saint John's Health Center and CEO, Providence LA Coastal Service Area, continues to be a strong ally and advocate for PNI and our multiple programs.

Enjoy this comprehensive overview of PNI's activities, highlighting our achievements in 2023 and offering a glimpse into our aspirations for 2024.

*PNI Founders: Daniel F. Kelly, MD, Chester F. Griffiths, MD, FACS, Howard R. Krauss, MD & Santosh Kesari, MD, PhD*



# PACIFIC

## Brain Health Center

**TACKLING COGNITIVE DECLINE FROM ALL SIDES:  
INTRODUCING PRECISION BRAIN HEALTH**

In the annals of medicine, Alzheimer's disease has proven to be an exceptionally difficult challenge. More than 6 million Americans live with Alzheimer's disease—the most common type of dementia—suffering progressing symptoms of memory loss, confusion, behavioral change, and the loss of body control. Yet a cure—or even an effective treatment—has been frustratingly elusive. According to dementia experts, more than 200 clinical trials of experimental drugs for Alzheimer's have failed.

A generous \$40 million gift in 2020 has allowed PNI to advance research and treatment of dementia and related areas of neurocognitive decline in an extraordinary manner, says PNI co-founder and director Daniel Kelly, MD. "The gift has greatly accelerated our efforts to transform clinical data into discovery and help develop new standards of care for Alzheimer's and related disorders," Dr. Kelly says.

While the gift has supported improving early detection, identifying risk factors, reducing risk, and helping those already suffering from dementia and cognitive decline, more philanthropy is needed. PNI and the Pacific Brain Health Center (PBHC) have been creating tools and sharing their findings through seven key publications in 2023 with the wider global

population, essentially developing 'best practices' that allow clinicians worldwide to change the course of disease.

### **NEW APPROACH TO DEMENTIA**

Since 2018, the Pacific Brain Health Center has been creating novel approaches aimed at more fruitful treatments of Alzheimer's disease (AD) and other dementias. The center was envisioned and founded by Dr. Kelly and geriatric psychiatrist David A. Merrill, MD, PhD, the center's director. The primary aim of the PBHC-based AD team led by Verna Porter, MD, continues to be diagnosis and treatment of AD and related dementias to achieve the best outcomes possible for those living with dementia.

In a unique and un-siloed structure, it brings together psychiatrists, neurologists, gerontologists, cognitive neuropsychologists, and addiction medicine specialists as well as experts in movement disorders-related cognitive decline such as is seen in Parkinson's disease, to advance the treatment of cognitive and memory impairments. Along with clinics in Santa Monica, clinical neuropsychology services expanded to Torrance in 2023 to serve the South Bay communities led by clinical neuropsychologist, Jesús O. Barreto Abrams, PhD. "Neuroscience is interdisciplinary at its heart and at PNI we've broken down





*Precision Brain Health Team: Mihae Kim, AGNP-BC, Claudia Wong, FNP-BC, Dale Bredesen, MD, David Merrill, MD, PhD, and Karen Miller, PhD*

### Brain Health

David Merrill, MD, PhD *Center Director*

**2023 Publications:** 7

#### Locations:

Santa Monica, Torrance

the silos between subspecialties to create a new dynamic,” says Dr. Merrill. Physicians from multiple specialties often see patients during a single clinic visit and coordinate their treatment plans as a team. William Buxton, MD, director of neuromuscular and neurodiagnostic medicine, and fall prevention, streamlines methods to optimize safety, especially related to fall prevention among neurology and dementia patients. The clinical neuropsychology team led by Stella Panos, PhD, continues to offer in-person and virtual support to patients. Scott Kaiser, MD, provides specialty geriatric medical consultations working with his colleagues in an integrated and holistic approach to address patients’ cognitive challenges.

2023 saw world-renowned researcher Dale Bredesen, MD, join Dr. Merrill in the creation of a new Precision Brain Health program. This precision medicine service is being combined with our existent Brain Wellness & Lifestyle program, led by Karen Miller, PhD. Through this novel “precision holistic” care model, we are correcting the root causes of cognitive decline while changing lifestyle behaviors to improve outcomes. We are reporting our findings in research articles and presentations.

Interim results from our flagship AD PREVENTION trial (Precision Recommendations for Environmental Variables, Exercise,

Nutrition, and Training Interventions to Optimize Neurocognition), combining precision medicine and lifestyle optimization, show slowing and at times reversal of AD symptoms in PBHC patients. Preliminary neuroimaging analyses of PREVENTION trial data by neuroscientists Jennifer Bramen, PhD, and Prabha Siddarth, PhD, indicate a reduction in the rate of cerebral blood flow decline among participants in crucial brain regions.

The Providence Medical Foundation’s research team for PNI, as managed by Jessica Serna, continues to help run our non-oncology clinical trials in collaboration with our Brain Health faculty and staff. At PBHC, we’ve continued to revise and expand our goals related to cognitive care across a broader spectrum of the neurosciences through collaboration with PNI’s other Centers of Excellence. The Movement Disorders Center, directed by Melita Petrossian, MD, has clinical trials treating memory loss in Parkinson’s disease dementia and Lewy body dementia. Director of our Multiple Sclerosis (MS) program Barbara Giesser, MD, completed and presented results of a pilot health coaching trial in recently diagnosed MS patients.

#### LEARN MORE:

**310-582-7641 | [PacificBrainHealth.org](https://PacificBrainHealth.org)**

# Brain Wellness & Lifestyle Program

## AT PNI FOUNDATION

Brain Wellness & Lifestyle Team:  
Molly Rapozo, MS, RDN, CD, Ryan Glatt, MS, CPT, NBC-HWC,  
Shannel Elhelou, PsyD, and Karen Miller, PhD

Our evidence-based cognitive training and lifestyle courses are designed to improve working memory capacity, reduce stress, optimize nutrition and exercise regimens, and promote healthy sleep patterns. Led by program senior director Karen Miller, PhD, and expert brain health trainers, the programs offer personalized guidance and proven strategies to support overall brain health and wellness.

Courses teach skills to help individuals address cognitive concerns related to age-related memory loss, long COVID or brain fog, mild cognitive impairment, Alzheimer's disease, other neurodegenerative conditions, and those with a family history of dementia. Whether people are currently experiencing memory loss, or being proactive, the Brain Wellness & Lifestyle program strategically intervenes to maximize quality of life with both in-person and online educational courses, in both individual and group settings. Classes are designed to provide educational guidance and support and may be additive to clinical treatments offered by the Brain Health Center PNI Medical Group faculty.



Following its launch in September 2022, the Brain Wellness & Lifestyle program has grown dramatically, serving almost 250 participants in 2023.

Dr. Miller's *Roadmap to Brain Wellness* delivers a tailored menu of brain health goals and cognitive training for individuals or couples. Many go on to weekly programs and ongoing monthly memory consultations. *Fit-Brain<sup>SM</sup>* sessions led by FitBrain director Ryan Glatt, MS, CPT, NBC-HWC, have continued to be extremely beneficial. Combining cognitive and physical exercise in a dual-tasking methodology, clients strengthen their brain's neural connections helping to enhance memory and cognition. A spin-off in-person class, *Memory Marathon*, launched for individuals with mild cognitive impairment or dementia. Enrollment in virtual memory training—*Vital Minds*—and health coaching sessions with registered dietician and senior nutrition and health educator, Molly Rapozo, MS, RDN, CD, grew throughout the year. In-person *Memory Care* groups, led by Dr. Miller and Shannel Elhelou, PsyD, are fast

outgrowing their space. Clients and their care partners participate in comprehensive 3-hour sessions to bolster the five core pillars for cognitive wellness: memory, nutrition, sleep, exercise, and stress reduction.

The team also provided free education about nutrition, longevity and memory training to LA communities through *Brain Health Boosters*. Several key community partnerships were made including with Santa Monica YMCA, Music Mends Minds, Santa Monica Chamber of Commerce and senior assisted-living homes. A monthly newsletter launched in summer.

For 2024, the Irene Dunne Guild, through Saint John's Health Center Foundation gave \$10,000 for community *Brain Health Boosters*. Los Angeles County Department of Mental Health, through Prevention and Early Intervention funding, in collaboration with the California Mental Health Services Authority gave a \$55,000 community grant to promote mental health among older adults through community education.

### Brain Wellness & Lifestyle

Karen Miller, PhD *Senior Director*

#### Program Offerings:

Roadmap to Brain Wellness Consultation, FitBrain<sup>SM</sup>, Brain Health Coaching, Social/Caregiver Support, Memory Training Class (Vital Minds & Memory Care), Memory Marathon, Mindful Mornings, Free Community Brain Health Booster

**Enrolled Clients:** 237

**1:1 sessions:** 486

**Fitbrain Sessions:** 915

**Lifestyle Group Classes:** 124

**Memory Care Sessions:** 258

**Care Partner Sessions:** 33

**Brain Health Booster Sessions:** 5

#### Location:

Santa Monica, In-person & Virtual

#### LEARN MORE:

**213-344-2037 | [PacificLifestyle.org](https://PacificLifestyle.org)**



# PACIFIC

## Treatment & Research In Psychedelics Center

In 2023, the TRIP program was elevated to the status of a center of excellence, where TRIP Center experts remain dedicated to addressing mental illness through psychedelic-assisted therapy.

Individuals grappling with mental health disorders actively seek secure and enduring treatments to enhance mood, outlook and overall quality of life. Our ketamine-assisted psychotherapy (KAP) program, guided by experienced therapists Micah Linton, PsyD, and Juliana Hudson, LCSW, aims to harness the brain's neuroplastic potential to address deep-rooted issues such as depression, anxiety, and addiction. Under Karina Sergi, MS, MFT, Director of Psychedelic Therapy Training and of Diversity, Equity, and Inclusion, the program has already expanded this year. Additionally, the TRIP Center led by center director, Keith Heinzerling, MD, participated in two multisite Phase 2 clinical trials— one with psilocybin for major depressive disorder (MDD) and another with MM-120 (LSD) for generalized anxiety disorder (GAD).

Both trials demonstrated major benefits and high safety profiles for these two medicines for MDD and GAD, respectively. The psilocybin trial for depression in collaboration with Usona Institute resulted in a key publication in JAMA. Results of the LSD trial for GAD are expected to be published in early 2024. The TRIP Center team also published their results from the Visual Healing alcohol use disorder study using psilocybin in an enhanced setting in collaboration with filmmaker Louie Schwartzberg. "Nature-themed immersive videos may have the potential to reduce cardiovascular risks of psychedelic therapy," says Dr. Heinzerling. "They may assist patients in feeling more relaxed and prepared for their psychedelic session without interfering with the psychedelic experience or alcohol-related treatment outcomes."

Multiple new clinical trials are anticipated in 2024, including a novel trial of psilocybin for patients with brain tumors and existential distress.



Keith Heinzerling, MD, Karina Sergi, MS, MFT, Micah Linton, PsyD, and Juliana Hudson, LCSW

### TRIP

Keith Heinzerling, MD Center Director

**Ketamine Patient Sessions:** 265

**2023 Publications:** 3

**Location:** Santa Monica

### LEARN MORE:

**Ketamine 310-582-7612**

**Clinical Trials 310-582-7611**

**PacificTRIP.org**



# Brain Tumor Center & Pituitary Disorders Center

Did you know there are over 100 different types of primary brain tumors which include benign and malignant brain tumors such as meningiomas and glioblastomas, tumors of the pituitary gland and tumors of the skull base such as acoustic neuromas and chordomas?

## EXPERT CARE AT PNI

“Because of the complex nature of brain, pituitary and skull base tumors, we created two Centers of Excellence at PNI many years ago that are dedicated to the care of patients with these complex intracranial growths,” says PNI director, Daniel Kelly, MD. “Like all of PNI, these two centers are notable for their multidisciplinary innovative approaches which emphasize use of minimally invasive approaches that optimize tumor resection while minimizing collateral damage to critical brain structures and above all, maintaining quality of life. Since PNI’s inception in 2015, these two centers and our faculty of neurosurgeons, ENTs and neuro-ophthalmologists, have been recognized as leaders in the field of minimally invasive keyhole surgery for removal of brain, pituitary and skull base tumors. Striving for excellence, PNI neurosurgeons help lead all of Providence in the lowest hospital length of stay and lowest ICU utilization at Saint John’s Health Center and Little Company of Mary for all types of brain and pituitary tumor surgeries. Notably, we’ve also grown the neurosurgery program to now include Saint Joseph Medical Center in Burbank.” Across all sites in 2023, we performed over 350 brain, skull base, and pituitary tumor surgeries, and more than 100 radiosurgeries (focused radiation) for brain tumors. PNI serves as a Southern California Providence brain tumor transfer center for specialty care at three

hospitals including Saint John’s in Santa Monica, Little Company of Mary in Torrance and Saint Joseph’s in Burbank.

Neurosurgeon, Walavan Sivakumar, MD, did his fellowship training at PNI in 2015. A few years later he came back to launch PNI-South Bay. Now the South Bay clinics continue to flourish serving more brain tumor



Walavan Sivakumar, MD

and pituitary disorders patients each year. In 2023, there were more than 3,700 neurosurgery patient encounters, up 19% from the previous year. The PNI neuroscience clinic in Burbank, is gaining momentum.

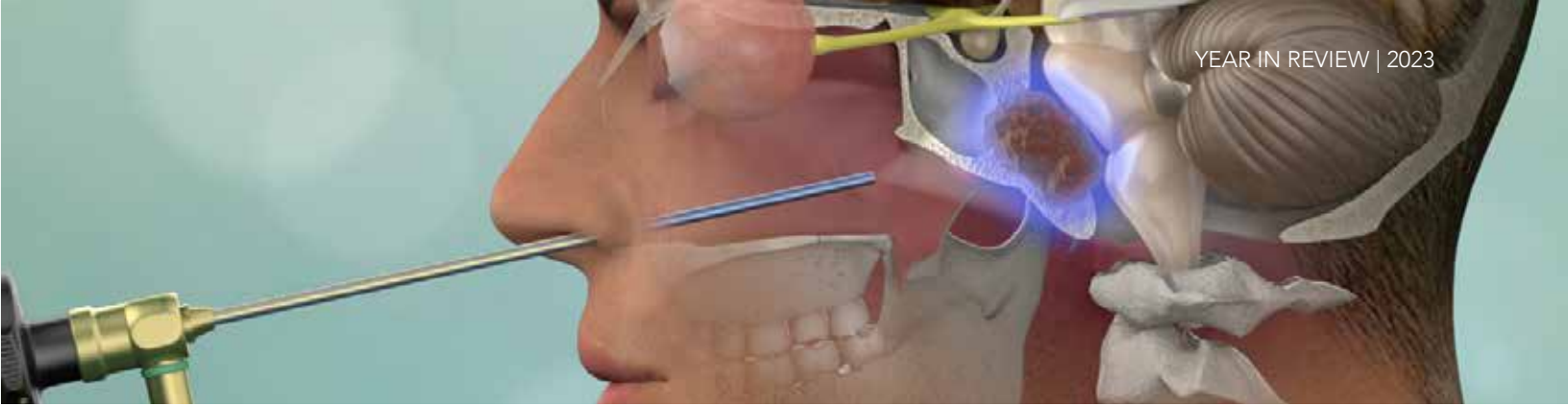
In the realm of education and training, in March 2024, Garni Barkhoudarian, MD, and Dr. Kelly will lead another Pacific Rim Hands-on Microdissection Course at the Saint John’s Cancer Institute, in collaboration with national and international faculty and in July 2024, a dedicated pituitary endocrinologist, Noa Tal, MD, will join the pituitary disorders center. Our clinical neurosurgery and international neurosurgery fellowship training programs continue to thrive, with new clinical fellows already selected to start in July 2024 and July 2025.

## NEURO-ONCOLOGY CARE HAS A WIDE REACH

Patients requiring neuro-oncological treatments, from chemotherapy, radiation and immunotherapy, to participating in clinical trials or individualized clinical protocols, benefited from comprehensive care delivered by PNI experts across every possible setting, says neuro-oncology director, Santosh Kesari, MD, PhD. This included outpatient, inpatient and virtual visits, providing accessibility across eight clinical sites. Our Southern California practice recorded over 10,000 patient encounters attending to nearly 6,000 patients. Notably, José Carrillo, MD, led the team in both the number of clinical sites and patient visits. Furthermore, the team was strengthened with the addition of Scott Turner, MD, making the neuro-oncology network one of the largest in the nation.



Akanksha Sharma, MD

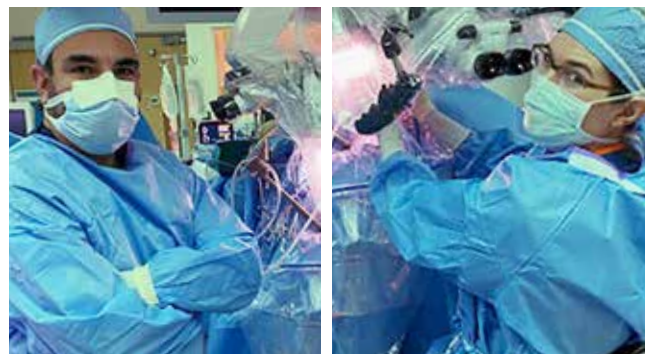
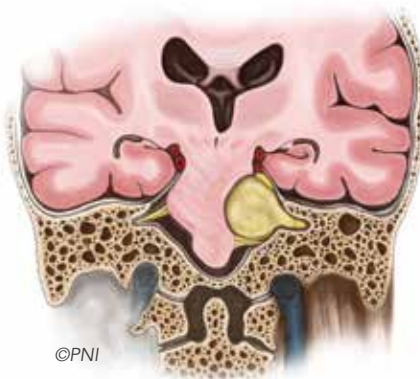


Akanksha Sharma, MD's Supportive Care Clinic doubled in size and the Brain Tumor Support Group provided resources for more than 50 patients and family members. Her month-long *Go Gray in May* event to raise awareness for brain tumor, highlighted the need. "32 of our patients passed away in 2023. Glioblastoma, the most aggressive of brain tumors, truly robs us of lights in this world. These were incredible, brilliant, loving, radiant beings whose wonderful families are now devastated by loss." Urgent resources and research are needed to find treatments that work, she explains. "I do this work because I am hopeful and optimistic that one day all my patients will be able to live with their tumor as if it was a chronic disease—not a death sentence." Efforts led by Dr. Sharma and Naveed Wagle, MD, resulted in over 150 patients consented and 135 enrolled into 17 clinical research trials across the region in 2023. The team continues to recruit patients for ongoing studies.

Patients with chordoma, a rare bone cancer affecting the skull or spine have hope. The team published results of a lung cancer drug Pemetrexed that has shown anti-tumor effectiveness and tolerability in chordoma leading to Phase 2 trials in 2024.

### ACOUSTIC NEUROMA TREATMENT

An uncommon tumor impacting approximately 20,000 Americans annually, acoustic neuroma is a noncancerous growth situated on the primary nerve connecting the inner ear to the brain and responsible for hearing and balance. Also known as vestibular schwannomas, these tumors typically exhibit slow or negligible growth. However, when they do grow, they exert increasing pressure on the hearing and balance nerves. With large tumors they can affect other adjacent nerves and the brain itself. Symptoms may include hearing loss, persistent ringing in the ear (tinnitus), facial numbness and unsteadiness or imbalance. While regular monitoring with audiograms and MRIs may be sufficient in some cases, when treatment is needed, it typically includes minimally invasive surgical removal and, in some cases, focused radiotherapy or radiosurgery.



Garni Barkhoudarian, MD and Courtney Voelker, MD, PhD

Spearheaded by neurotologist and otolaryngology – head and neck surgeon Courtney Voelker, MD, PhD, with neurosurgeon Dr. Barkhoudarian, our enhanced treatment protocol for acoustic neuromas is gaining momentum. Patients from the greater LA area and across the United States experience our multidisciplinary team approach along with rapid diagnosis, and state-of-the-art treatments. For qualified patients who suffer hearing loss before or after surgery, a cochlear implant may be placed in the affected ear to restore hearing at the time of tumor removal—a unique feature offered at few institutions.

PNI has been chosen as the Fall 2024 site by the Acoustic Neuroma Association for their patient educational conference. In October, patients and their families will have a day with PNI surgeons, physicians and other professionals involved in the care of patients living with acoustic neuroma. [310-582-7450](tel:310-582-7450) | [PacificBrainTumor](http://PacificBrainTumor.org) | [PacificPituitary.org](http://PacificPituitary.org)

### Brain Tumor & Pituitary Disorders

Daniel Kelly, MD *Center Director*  
Garni Barkhoudarian, MD *Center Director*  
Santosh Kesari, MD, PhD *Neuro-oncology Director*

**2023 Publications:** 21

**Clinical Trials:** 17

#### Locations:

Santa Monica, Torrance, Burbank,  
Mission Viejo, Fullerton, Orange



Janna at the 2023 American Brain Tumor Association BT5K Walk & Run in Los Angeles, CA. Garni Barkhoudarian, MD, Janna, Amy Eisenberg, MSN, ARNP, CNRN, Natasha Cueto, MSN, APN, AGACNP-BC, and Janna's mother Jaime.

## Living a bright future

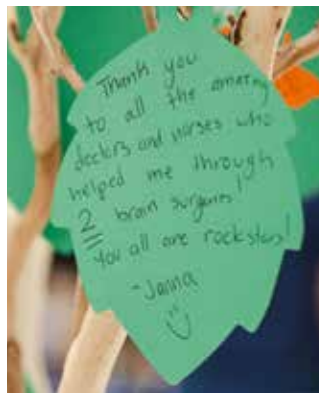
### From a Rare Brain Tumor Diagnosis to Law School: A Young Woman's Courageous Journey

**W**ith law school on the horizon, Janna's present academic pursuits belie the challenging chapters she has overcome—two brain tumor surgeries and radiation treatment.

Janna was 21 when her college journey took an unexpected detour. She experienced severe and sudden hearing loss in one ear. An MRI scan revealed that she had a left vestibular schwannoma, also known as an acoustic neuroma. A rare brain tumor, these benign growths are highly treatable, with care from experienced neurosurgeons.

Initially overwhelmed by the diagnosis, Janna and her family considered consulting various specialists for opinions. However, their first visit to Pacific Neuroscience Institute marked a pivotal moment in her quest. "I knew immediately that PNI was the place for us," says Janna. "The unparalleled level of care and compassion we received during our first consultation cemented our decision to pursue my treatment exclusively at PNI."

The path to recovery was arduous, involving two intricate brain surgeries and radiation therapy. These procedures and treatment were crucial in stabilizing and gradually improving Janna's condition. Along the way, a significant aspect of her experience



was the extraordinary empathy and support she received. She recalls with appreciation the dedicated commitment of her surgeons, Daniel Kelly, MD, and Garni Barkhoudarian, MD, and the invaluable support from nurse practitioners Amy Eisenberg and Natasha Cueto. "The best thing about the PNI team is they made us feel secure. They walked us through every step of the surgery, called my parents with updates during surgery and answered every single question my family had."

Janna's experience highlights the vital role her healthcare providers played in both treating her medical condition and fostering resilience and hope during challenging times. The care Janna received at PNI has had a lasting impact on her beyond physical recovery. After completing her treatment, she has accomplished many significant milestones: interning in Congress, working for a public defender, graduating from college, completing a 5K run and gaining admission to law school. When reflecting on her journey, Janna says, "PNI isn't just a medical facility, it is a community of people who care about your well-being in every single way."

**LEARN MORE:**

Santa Monica 310-582-7450 | South Bay 424-212-5361 | Burbank 818-847-6049 | [PacificBrainTumor.org](http://PacificBrainTumor.org)

# PACIFIC

## Stroke & Neurovascular Center

### CLINICAL EXCELLENCE IN LIFE-SAVING CARE

Already a busy stroke center, in 2023, Providence Saint John's Health Center (Santa Monica) became the fourth Comprehensive Stroke Center for which PNI neuro-interventional radiologists and neurosurgeons provide care and oversight, joining Providence Little Company of Mary (Torrance), Saint Joseph Medical Center (Burbank), and Holy Cross Medical Center (Mission Hills). This network of four comprehensive stroke centers under the care of PNI-led clinicians is now one of the largest such networks in California. Not only are we one of the busiest networks but our PNI stroke teams across Southern California led in thrombectomy times in the Providence system translating to quicker and more complete recovery from stroke. This outstanding collaboration of our PNI stroke clinicians working with Providence partner hospitals, also resulted in multiple national recognitions from the American Heart Association, including the Get With The Guidelines – Stroke GoldPlus award, Target: Stroke Elite Plus Honor Roll, Target: Stroke Honor Roll Elite Plus and Target: Advanced Therapy. 2023 also saw our Stroke and Neurovascular Center team grow with the addition of Dr. José Morales, MD, MSc. Sandra Narayanan, MD, was appointed director of the neurointerventional program and co-director of the stroke program at Providence Saint Joseph Medical Center in Burbank. Recruitment of a seventh neurointerventional radiologist is underway.

On the research front, PNI stroke doctors participated in multiple national clinical trials that assessed neuroprotection and other approaches to ischemic stroke, carotid artery stenosis and neurovascular management of subdural hematomas. Notably, our PNI-South Bay site at Little Company of Mary in Torrance was in the top ten enrolling centers nationwide for the EMBOLISE trial for subdural hemorrhage and number two in the nation for the ESCAPE-NEXT stroke trial. [PacificStroke.org](https://www.pacificstroke.org)

### Stroke & Neurovascular

Jason Tarpley, MD, PhD *Center Director*

Samuel Hou, MD, PhD *Center Director*

Walavan Sivakumar, MD *Center Director*

Adi Iyer, MD, MS *Center Director*

**2023 Patient Encounters:** 1,301

**Growth Over Previous Year:** 39%

**2023 Publications:** 4

**Locations:** Santa Monica, Torrance, Burbank, Mission Hills

## Movement Disorders Center

### EXPERT TEAMS: BUSIER THAN EVER

The Movement Disorders Center led by director and neurologist Melita Petrossian, MD, continued to provide care, support and education for patients with neurological diseases such as Parkinson's disease (PD), essential tremor and Lewy body dementia. Deep brain stimulation (DBS) surgery to help control PD symptoms was available in Santa Monica and Torrance led by center director and neurosurgeon Jean-Philippe Langevin, MD. PNI-South Bay services flourished under neurologist Natalie Diaz, MD. Patients gathered for support groups, webinars and community partner events throughout the year hosted by the entire team.

Results from the Syn One Study for neurodegenerative disorders were published, showing remarkable accuracy of a skin-biopsy-based biomarker for PD and Lewy bodies. A clinical trial for novel treatment of essential tremor was closed; results are pending. In efforts to discover disease-modifying treatments, our trial for early stage PD is going well but no longer recruiting new participants, and the trial studying preventative treatment for dementia with Lewy bodies is recruiting patients in 2024. [PacificMovement.org](https://www.pacificmovement.org)

### Movement Disorders

Melita Petrossian, MD *Center Director*

Jean-Philippe Langevin, MD *Center Director*

### Locations:

Santa Monica, Torrance



# PACIFIC

## Eye & ENT

### EYE & ENT EXPERTS PROVIDE ESSENTIAL CARE

PNI's neuro-ophthalmology practice led by Howard R. Krauss, MD, extended its reach with the addition of Alexander M. Solomon, MD, to both the Santa Monica and Torrance locations. Additionally, new optometry services led by Michelle Holmes, OD, are now also available in Santa Monica, and are anticipated to be further expanded in 2024 with the addition of Danica Quicho, OD. This comprehensive vision program with sophisticated retinal scanning is being integrated into the brain health clinic to help identify early signs of cognitive decline, and prospectively monitor effects of intervention.

Exciting developments include an upcoming clinical trial with utilization of an investigational device and technology that capitalizes on the use of Artificial Intelligence (AI) and Deep Learning in the analysis of hyperspectral retinal images for early detection of Alzheimer's disease. Additionally, a study of anti-insulin-like growth factor-1 receptor monoclonal antibodies with Dr. Krauss as principal investigator will be conducted to explore their efficacy in the treatment of thyroid eye disease. In 2024, we also look forward to the addition to the brain health rehab department, of neuro occupational therapist, Gina Kim, MOT, coming to us from Johns Hopkins Medicine, where she has honed expertise in vision rehab in support of their neuro rehab program.



In 2023, the general and specialized ear, nose and throat (ENT) practice led by Chester Griffiths, MD, FACS, experienced continued exponential growth. Rhinologist and head & neck surgeon, Michael Yong, MD,

MPH, MBA, joined PNI. The Hearing Aid & Recycling Program, generously funded by philanthropists Su-Z & Ted Schneider, continued its impactful hearing testing outreach through the HearX platform. Omid Mehdizadeh, MD, introduced a new surgically implanted device to help prevent obstructive sleep apnea. The addition of two new speech-language pathology experts further expanded the scope of care across various disease types. Pacific Head & Neck specialists hosted an ENT Continuing Medical Education course for primary care physicians. A significant milestone was reached as pediatric cochlear implant surgery begins at Providence Saint John's Health Center in 2024. Cochlear implant and brain wellness experts are developing cross-functional care to reverse cognitive decline due to hearing loss. We are working on a unique collaboration with the University of Hanover's Center of Excellence in Hearing.

**EYE 310-829-8701 | ENT Wilshire 310-477-5558 |  
ENT Santa Monica 310-829-8701 or 310-829-7792 |  
ENT Burbank 818-847-6279  
PacificEyeAndEar.org | PacificHeadAndNeck.com**

### Eye & ENT

Chester Griffiths, MD, FACS *Center Director*  
Howard Krauss, MD *Center Director*

**2023 Medical Assistants-In-Training: 16**

**2023 Publications: 6**

### Locations:

Santa Monica, West LA, Torrance, Playa Vista

### FACIAL NERVE DISORDERS PROGRAM

The Facial Nerve Disorders program has grown under the compassionate and expert approach of program director Amit Kochhar, MD, with clinics in Santa Monica, West LA and Torrance. "By employing a shared decision-making model, we address the patient's primary goals," he explains. In 2023, he added new procedures including selective neurolysis and depressor anguli oris excision. "We continue to collaborate with USC Viterbi School of Engineering to create a machine learning tool to better assess facial asymmetry," he says. He published a paper assessing patients with facial paralysis after acoustic neuroma surgery. Research was presented at three national meetings and the program received a grant from the Linda Tallen Foundation to educate providers and develop a survivorship program. The first facial nerve symposium and first head and neck

cancer reconstruction lab will take place in 2024. A joint PNI-Saint John's Cancer Institute head and neck cancer survivorship program is in development.



Amit Kochhar, MD

Research to improve communication and education for those living with facial paralysis is ongoing.

**310-477-5558 | PacificNeuro.org/FacialNerve**



PATIENT HIGHLIGHT:  
COCHLEAR IMPLANTS FOR HEARING RESTORATION

## *A Sound Investment*

**A**fter Sienna failed her newborn hearing screen, a diagnosis of profound bilateral hearing loss prompted her parents to seek treatment.

"We were crushed by Sienna's diagnosis and were determined to explore options for her as soon as possible," says Sienna's mother, Katie. Because her family's language modality choice is speech and hearing, at only five months old, Sienna was referred to Adult and Pediatric Cochlear Implant Program director, Courtney Voelker, MD, PhD and audiology director, Rebecca Lewis, AuD. Sienna's examination revealed that she would be a good candidate for bilateral cochlear implants to give her hearing in both ears. "Studies show babies implanted at six months do significantly better than interventions even at one year and they are able to become mainstreamed sooner," Dr. Voelker explains. PNI's Hearing Restoration Program, now in its second year, is excited to launch a much-needed formal hearing screening protocol in primary care offices in 2024.

Sienna's family opted for surgery recognizing the profound benefits of early cochlear implantation for children with deafness. Post-surgery, Sienna's care transitioned to Dr. Lewis, who meticulously fine-tuned Sienna's external processors. Within



Sienna wearing her cochlear implant processors

weeks, Sienna's auditory capabilities soared. At six months, she began exhibiting the ability to mimic sounds and vocalize, reinforcing the positive impact of early implantation on cognitive development.

In the adult population, only 5-7% of people who would benefit from a cochlear implant actually receive one. But the word is spreading and in 2023, Dr. Voelker performed 42 cochlear implant surgeries and is on track to double that this year. They are working hard to meet the need, she says, with community outreach events for patients, meetings with community audiologists and presentations at national meetings. "We are organizing our 2nd Annual International Temporal Bone Course in 2024," she explains. "Surgeons from around the world, many from developing nations will fly to PNI to gain critical hands-on skills to take back to their countries."

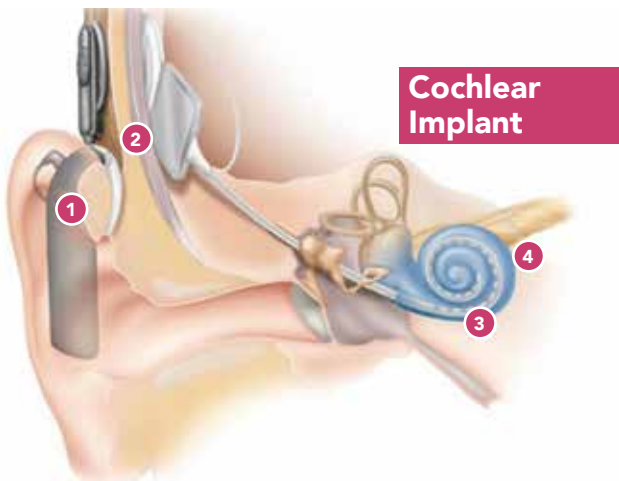
Sienna's parents are ecstatic. "We absolutely made the right decision for Sienna and our family. It was priceless to see her smile for the first time when we said 'I love you'."

The life-altering effect of hearing restoration on the whole family never fails to move the doctors who are thrilled with Sienna's progress. Describing it as a magical and rewarding experience Dr. Lewis reflects, "I'm so gratified I get to be a part of that process for them."

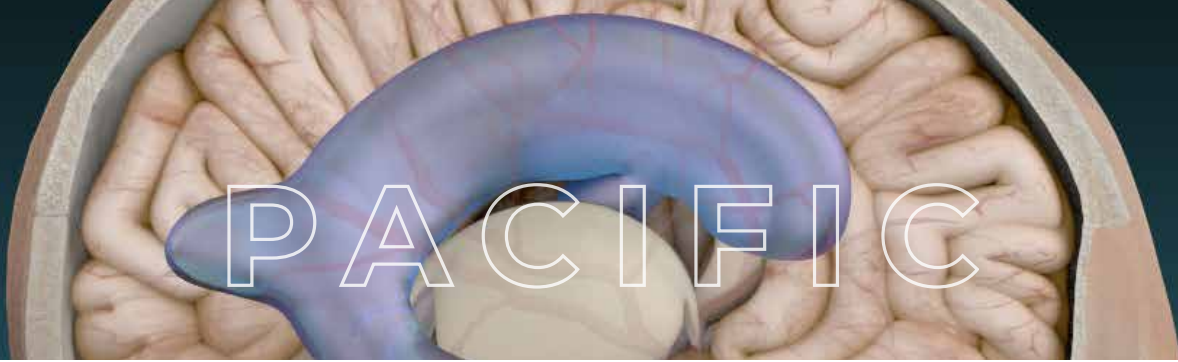
"We have received several generous philanthropic donations to grow a robust pediatric program in 2024 filling the pediatric cochlear implant crisis in Los Angeles," Dr. Voelker says. With each case, she adds, "I always say I'm not going to cry, but I always do. How can you not be affected by such a miraculous transformation?"

### LEARN MORE:

310-829-6595 | [PacificNeuro.org/Cochlear-Implants](https://PacificNeuro.org/Cochlear-Implants)



- 1 External hardware** (includes microphone, speech processor, coil/cable & battery)  
The microphone captures sound. The speech processor converts it into a digital signal. The signal is sent through the cable to the transmitting coil.
- 2 Internal receiver**  
The signal is sent across the skin to the implant, where it is converted to electrical energy and decoded.
- 3 Electrode array**  
The electrical energy is sent to the electrode array within the cochlea, where it stimulates the hearing nerve.
- 4 Hearing nerve**  
The stimulation of the hearing nerve is perceived as sound in the brain.



## Hydrocephalus Center

Hydrocephalus is characterized by the abnormal accumulation of excess fluid in the brain's fluid-filled chambers, known as ventricles. The resulting pressure may lead to symptoms of headaches, impaired vision, cognitive challenges, loss of coordination and incontinence. The typical treatment for symptomatic patients involves the surgical insertion of a tube, known as a shunt, into a ventricle to facilitate the drainage of excess fluid back into the body and to normalize flow dynamics. At our Adult Hydrocephalus Center, more patients were seen and treated in 2023 as our hydrocephalus clinics expanded to three locations including Santa Monica, Torrance, and Burbank.

On the research front, under the leadership of center director Garni Barkhoudarian, MD, PNI became one of only a few centers nationwide to participate in the PENS trial to evaluate the response of shunting in patients with idiopathic normal pressure hydrocephalus and to evaluate factors improving diagnosis. In 2024, PNI will work with CereVasc, Inc's eShunt® System designed to address communicating hydrocephalus, a prevalent neurological condition that affects both children and adults.

**310-582-7450 | [PacificHydrocephalus.org](https://PacificHydrocephalus.org)**

## Facial Pain Center

Patients suffering from a variety of conditions that may cause severe and intractable facial pain or abnormal movements, continued to receive caring and skilled expertise for facial pain across three Southern California locations. Trigeminal neuralgia, glossopharyngeal neuralgia and hemifacial spasm often require a multidisciplinary approach to achieve pain relief.

PNI's team of experts, including neurologists, neurosurgeons, ENT surgeons and radiation oncologists, collaborate on personalized treatment plans tailored to help patients become pain-free or in the case of hemifacial spasm, spasm-free. Endoscope assisted microvascular decompression surgery is a minimally invasive, maximally effective treatment option often best for patients suffering from these debilitating conditions. Center director and neurosurgeon Garni Barkhoudarian, MD, uses his extensive experience in providing this specialized solution to pain relief. For many patients with trigeminal neuralgia, pinpoint delivery of radiation may be the best treatment option.

**310-582-7450 | [PacificFacialPain.org](https://PacificFacialPain.org)**



### PNI's MULTIPLE SCLEROSIS CLINIC

When Samantha was first diagnosed with multiple sclerosis (MS) 14 years ago, she was frightened and confused. Determined to find superior care, she sought out neurologist Barbara Giesser, MD. "Dr. Giesser changed my life," she says.

In 2023, Dr. Giesser was named the Healthcare Champion by the California-Nevada chapter of the National Multiple Sclerosis Society.

Embedded within the brain health center, the MS clinic remained busy. Keith Quinn, BSN, RN, joined the

clinic to provide nursing care and education. A pilot clinical trial of wellness intervention for early MS was completed and Dr. Giesser presented at two meetings.

"In 2024, we hope to receive the designation of Comprehensive Care Center from NMSS," says Dr. Giesser. "Our future aspirations include a multidisciplinary newly-diagnosed clinic for persons with early Multiple Sclerosis," she adds.

**LEARN MORE:**

**310-582-7613 | [PacificNeuro.org/MS](https://PacificNeuro.org/MS)**



## 2023 PNI Accolades

US News & World Report High Performing in Neurology and Neurosurgery.

Advanced Comprehensive Stroke Centers, Advanced Primary Stroke Centers and Thrombectomy-Capable Stroke Centers.

American Heart Association/ American Stroke Association Get With The Guidelines® - Stroke Gold Plus and Target: Stroke Honor Roll Elite Plus Advanced Therapy.

National Multiple Sclerosis Society Parters In Care Certification.

Barbara Giesser, MD, received the prestigious 2023 Healthcare Champion Award from the National Multiple Sclerosis Society.

Daniel Kelly, MD, was honored by Saint John's Health Center Foundation as a 2023 Physician Champion leader in philanthropy.

Akanksha Sharma, MD, was named Providence Saint John's Health Center Neuro-oncology Research Director.

Walavan Sivakumar, MD, was chosen as an outstanding neurosurgeon in Becker Spine's 2023 40 under 40.

Courtney Voelker, MD, PhD, was appointed to the Acoustic Neuroma Association's 2023 Medical Advisory Board.

2 in 3 PNI medical doctors received Super Doctor & Super Doctor Rising Star designations.



PNI's online reputation continues to be exemplary as reported by the independent Expert Reputation management system.

### New members of PNI Medical Group

Michelle Holmes, OD  
*Optometry*

José M. Morales, MD, MSc  
*Vascular Neurosurgery;  
Neurointerventional Surgery*

Scott Turner, MD  
*Neuro-oncology*

Michael Yong, MD, MPH, MBA  
*ENT Surgery, Rhinology*

# PACIFIC Spine Health Center

The Spine Health Center focuses on comprehensive and multidisciplinary care. Our highly specialized and experienced network of pain doctors, radiologists, therapists and oncologists work with our spine neurosurgery experts to offer treatment options for all conditions involving the spine, including degenerative spine disease, pinched nerves, pain, disc displacement, spinal infection, spinal tumor and vascular lesions. In partnership with the Spine Institute at Little Company of Mary in Torrance and at Saint Joseph Medical Center in Burbank, patients receive wraparound compassionate care.

**424-212-5361 | [PacificSpineHealth.org](https://www.PacificSpineHealth.org)**



### Spine Health

Jean-Philippe Langevin, MD *Center Director*  
Jian Guan, MD *Center Director*

### Locations:

Torrance, Burbank

## PNI FOUNDATION

ADVANCING THE NEUROSCIENCES



Daniel Kelly, MD, Chris Cosgrove, MBA and Sheryl Bourgeois, PhD

Chris Cosgrove, MBA, was appointed as Chief Operating Officer of PNI Foundation in 2023.

PNI Foundation and SJHC Foundation continue to work collaboratively for philanthropic support of the PNIF mission under the leadership of PNIF President and CEO, Daniel Kelly, MD, and Sheryl Bourgeois, PhD, SJHCF President and CEO, and our PNI Foundation Board to advance the neurosciences. In 2023, these collective efforts fueled by the generosity of our committed donor community supported research and educational programs across PNI including PNI's brain health, cochlear implant, neuro-oncology, TRIP and Brain Wellness & Lifestyle programs.

In the four years since receiving a dedicated \$40 million gift, our Brain Health Center research team continues to transform clinical data into discovery, working towards novel approaches to prevent and slow progression of Alzheimer's disease and other dementias. Multiple peer-reviewed papers were published in 2023.

The Brain Wellness & Lifestyle program grew and celebrated its one year anniversary. With multiple course offerings available in both virtual and in-person formats, clients participated in group or individual settings learning skills to improve memory, cognition, sleep, nutrition and exercise, and reduce stress.

### PNIF Board of Directors

Garni Barkhoudarian, MD, FAANS; Thomas Geiser; Chester F. Griffiths, MD, FACS; Mary Ellen Kanoff; Daniel F. Kelly, MD; Howard R. Krauss, MD; Neil A. Martin, MD; Lisa Nesbitt; Theodore H. Schneider; Donna F. Tuttle; and Roger Wacker.

424-465-1551 | [PacificNeuro.org/Foundation](https://PacificNeuro.org/Foundation)

## COMMUNITY EDUCATION, OUTREACH & EVENTS

In 2023, PNI sponsored many organizations and participated in numerous patient and care partner support groups, webinars and community events. Partners included American Brain Tumor Association (ABTA), Acoustic Neuroma Association (ANA), American Parkinson's Disease Association, Cancer Support Community Los Angeles, KCRW Public Radio, National Multiple Sclerosis Society, No Limits For Deaf Children, Parkinson's Foundation, Parkinson's Community Los Angeles, Pituitary Network and Walk4Hearing.

We look forward to continuing these important relationships in 2024. A patient event with the ANA is planned for October. Experts supported patients and care partners at 70 educational activities for brain tumor, facial paralysis, multiple sclerosis, Parkinson's disease and stroke. PNI's palliative care specialist's powerful opening speech at the ABTA's 5K Walk in Downtown Los Angeles helped raise much-needed funds for research and awareness. PNI and Providence Saint John's hosted Brain Tumor Awareness Month's *Go Gray in May*. Throughout May, brain tumor patients and their loved ones were supported with many activities. Care partner survivors Thrive Media writer Elaine Lipworth and TV weather anchor Maria Quiban were among the speakers at the community walk at the end of the month. The Brain Wellness & Lifestyle team led five free community *Brain Health Booster* events across greater LA. They supported Saint John's at the Self Care September Wellness Fair for Providence providers and caregivers.



A month of activities for *Go Gray In May* 2023 brain tumor awareness month culminated with an awareness walk celebrating patients, care partners, loved ones and providers.

## 2023 DONOR WALL

*With Gratitude*

## ANNUAL GIFTS

## \$1 - \$9,999

Janet S. Adams  
Rhebe Aguado  
Paul and Merilyn Allen  
Anonymous (10)  
Allison and Jeffrey Arnold  
Tahira Arshad  
Michelle and Michael Barney  
Danielle Baror  
Eileen A. Barrett  
Randy Bassett  
Aaron M. Berman, MD  
Debra Bessen  
Nancy S. Bley  
Brenda M. Borron  
Joan T. Brunjes  
Frances Bumann  
Janice H. Burrill  
Cindy Cheever  
Mary Jo Chorbagian  
Ian A. Cook  
Emmanuelle and Dennis Cook  
Christina and Manuel Corral  
Ellen and Dennis Danforth  
Wira Daniels  
Dale J. Darmody  
Sonja Diamond-Weber  
Ronna DiPersia  
Arnold Doyschen  
Sandra and David Engh  
Ava and Anthony Farentino  
Veronica Fisher  
Cristina M. Florez  
Stella and James Fordyce  
Barbara and Steven Fowlkes  
Lynne and Jay Friedlander  
Dave Friedlander  
Linda S. Gallof  
Laurel Peniche Gartman Atty. at Law  
Corazon and Jose Ginez  
Penelope and Robert Gipson  
Ryan Glatt  
Rosa Gosálvez  
Angelica H. Gracia  
Amy Greenburg  
Keith O. Harmon  
Tanis and Arthur Harris  
Thomas A. Harris  
Michele Hay  
Erika and Stuart Hindle  
Dominique Hinman  
Fran Hodes and Warren Churg  
Jo Susan and Donald\* Holzman

Barbara Hopper  
Ursula H. Hyman  
Deborah and Randy Iaboni  
Cathy Iger  
Linda B. Jankovic  
Mark Kaplan  
Ashley Kent  
Sheldon Klee  
Julie Kramer  
Cheryl and Howard Krauss, MD  
Annette D. LaCombe  
Shirley and Martin Lebowitz, MD  
Chandra J. Leck  
Lemen Associates  
Claudia Lieberman  
Rachael Lieberman and Nicholas Mercure  
Elaine Lipworth  
Guinevere and Ronald Lyster  
Carolyn and Michael Manaugh  
Margo and David Lee  
and The Wain Foundation  
Carol Marlowe and Kenneth Stringer  
Clotilde and Donald McEachren  
Lawrence and Charles Meister  
Melissa and Robert Sutton  
and the Albertson Foundation  
Mary Neal  
Betsy Newman and Howard Heitner  
Margaret L. Newton  
Karen and Stephen Niemela  
Rebecca Parnell  
Joy S. Pepper  
Barry Portnoy  
Leslie and Robert Reback  
Mara and Dan Redden  
Nancy and John Richardson  
Ross B. Rosenfelt  
Ann Rudy  
Jose Ruelas and Beverly Broger  
Laurie and Joseph Ryan  
Lesley and Geoffrey Sacks  
Herbert Schofield IV and Lisa Willinger  
Lynn Schwartz  
Constance and Richard Scofield  
Joan Segal  
Stephen and E. Sferrino  
Laura Shack  
Carole and Ernie Shaffer  
Jay Shapiro  
Susan B. Shapiro  
Patricia C. Shaver  
Janice Sherrod  
Nanci Simkin  
Duane A. Simmons  
Debra and Mitchell Simon

Deborah Simons and Harold Slater  
Sandra and Hal Slan  
Marcia and Mark Smith  
Family of Susie Sultan  
Laurice and Jeffrey Tamura  
Tanner Project Foundation  
Katherine Trafecanty  
Heather and Andy Trilling  
Roberta M. Tseng  
Neal Tyler  
Universal Music Group  
Regina M. Valdivia  
LeeAnn Vautrin-Gardinier  
Catherine Vinnicombe  
Catherine and James Wadsworth  
Pamela N. Wall  
David H. Walter, Ph.D.  
Beverly Williams  
Wisdom Lodge 202 F. & A.M.  
Patricia B. Wood  
Susan and Jim Zerwick  
Mandy Y. Zhang  
Katherine and Marvin Zuckerman

## \$10,000 - \$49,999

Anonymous  
Pat and Art Antin  
Cecelia and Jeff Assaf  
Rosalie and Mark Baker  
Donnalisa and Bill Barnum  
Norris and Debra Bishton  
Becca and Jonathan Congdon  
Michael Croft and Lynn Williams Croft  
The A. Redmond Doms Family  
Lauren and Austin Fite  
Richard Hilton  
Mark and Kelly Holscher  
Linda and Michael Hong  
Lynn and Craig Jacobson  
Judith and Steaven K. Jones  
Sandra and Lewis Kanengiser, MD  
Mary Ellen and Chris Kanoff  
Katherine and Robert\* Kaufman  
Caroline and Stephen Keck  
Shelley and James Kent, PhD  
L. Leroy and  
Ethel Bell Wright Foundation  
Bernadette and Timothy Leuweke  
Cherryl and Robert Mangels  
Lisa and Stephen Nesbitt  
Chris and Dick Newman  
Fran and Maury Rice and Family  
Robert Ronus  
Stefani and Myron Roth  
Susan and Bruce Savett

Laura and William Siart  
Loraine and Robert\* Sinskey, MD  
The Mildred E.  
and Harvey S. Mudd Foundation  
Donna Tuttle and David\* Elmore  
Ruth and Martin Weil\*  
Mr. Stephen Zimmerman  
and Mrs. Lianne Barnes

## \$50,000 - \$149,999

Lori and Howard Altman  
Linnae M. Anderson and Thomas E. Epley  
Danhaki Family Foundation  
Jim and Joanne Hunter  
Michele and Ted Kaplan  
Karlene Garber and The Beal Foundation  
Kim and Andrew D. Busch Family  
Foundation  
Morton Kirshner  
Linda Tallen & David Paul Kane Cancer  
Education and Research  
Brett K. Oubre  
Su-z and Ted Schneider  
Scott and Ashley Cohen Family Foundation  
Marcia and Robert Shuwarger  
Juan Suarez  
Bonese and Glenn Turner  
Mr. Stephen Zimmerman  
and Mrs. Lianne Barnes

## \$150,000 - \$499,999

Anonymous  
Fritz B. Burns Foundation  
Sharon and David Keller  
John\* and Barbara McLoughlin  
Robert Segal and Jeanne Segal, PhD\*  
Mitchell Singer

## \$500,000 - \$1,000,000

Mary and Daniel James

## \$1,000,000+

Anonymous

## NEW PLEDGES

Lori and Howard Altman  
Anonymous  
Lauren and Austin Fite  
Amy C. Greenwood  
Robert Segal and Jeanne Segal, PhD\*  
Juan Suarez

\*deceased

For more information about our innovative programs at Pacific Neuroscience Institute, please visit [PacificNeuro.org/Foundation](https://PacificNeuro.org/Foundation) or call PNI Foundation at 424-465-1551.

# PNI PUBLICATIONS | 2023

## BRAIN HEALTH

1. Handgrip strength is related to hippocampal and lobar brain volumes in a cohort of cognitively impaired older adults with confirmed amyloid burden.  
Meysami S, Raji CA, Glatt RM, Popa ES, Ganapathi AS, Bookheimer T, Slyapich CB, Pierce KP, Richards CJ, Lampa MG, Gill JM, Rapozo MK, Hodes JF, Tongson YM, Wong CL, Kim M, Porter VR, Kaiser SA, Panos SE, Dye RV, Miller KJ, Bookheimer SY, Martin NA, Kesari S, Kelly DF, Bramen JE, Siddarth P, Merrill DA. *J Alzheimers Dis.* 2023;91(3):999-1006. doi: 10.3233/JAD-220886. PMID: 36530088
2. Impact of eating a carbohydrate-restricted diet on cortical atrophy in a cross-section of amyloid positive patients with Alzheimer's disease: a small sample study.  
Bramen JE, Siddarth P, Popa ES, Kress GT, Rapozo MK, Hodes JF, Ganapathi AS, Slyapich CB, Glatt RM, Pierce K, Porter VR, Wong C, Kim M, Dye RV, Panos S, Bookheimer T, Togashi T, Loong S, Raji CA, Bookheimer SY, Roach JC, Merrill DA.
3. Neuroinflammation: A modifiable pathway linking obesity, Alzheimer's disease and depression.  
Ly M, Yu GZ, Mian A, Cramer A, Meysami S, Merrill DA, Samara A, Eisenstein SA, Hershey T, Babulal GM, Lenze EJ, Morris JC, Benzinger TLS, Raji CA. *Am J Geriatr Psychiatry.* 2023 Oct;31(10):853-866. doi: 10.1016/j.jagp.2023.06.001. Epub 2023 Jun 11. PMID: 37365110
4. Preliminary validation of a structural magnetic resonance imaging metric for tracking dementia-related neurodegeneration and future decline.  
Kress GT, Popa ES, Thompson PM, Bookheimer SY, Thomopoulos SI, Ching CRK, Zheng H, Hirsh DA, Merrill DA, Panos SE, Raji CA, Siddarth P, Bramen JE. *Neuroimage Clin.* 2023;39:103458. doi: 10.1016/j.nicl.2023.103458. Epub 2023 Jun 26. PMID: 37421927
5. Visceral and subcutaneous abdominal fat predict brain volume loss at midlife in 10,001 individuals.  
Raji CA, Meysami S, Hashemi S, Garg S, Akbari N, Gouda A, Chodakiewicz YG, Nguyen TD, Niotis K, Merrill DA, Attariwala R. *Aging Dis.* 2023 Aug 28. doi: 10.14336/AD.2023.0820. Online ahead of print. PMID: 37728587

## BRAIN HEALTH / NEUROVASCULAR

6. Emerging advances of in vivo detection of chronic traumatic encephalopathy and traumatic brain injury.  
Dallmeier JD, Meysami S, Merrill DA, Raji CA. *Br J Radiol.* 2019 Sep;92(1101):20180925. doi: 10.1259/bjr.20180925. Epub 2019 Jul 26. PMID: 31287716

## PSYCHEDELICS

7. Nature-themed video intervention may improve cardiovascular safety of psilocybin-assisted therapy for alcohol use disorder.  
Heinzerling KG, Sergi K, Linton M, Rich R, Youssef B, Bentancourt I, Bramen J, Siddarth P, Schwartzberg L, Kelly DF. *Front Psychiatry.* 2023 Sep 18;14:1215972. doi: 10.3389/fpsy.2023.1215972. eCollection 2023. PMID: 37795513
8. Psychedelic-assisted therapy and psychedelic science: a review and perspective on opportunities in neurosurgery and neuro-oncology.  
Daniel F Kelly, Keith Heinzerling, Akanksha Sharma, Shanthi Gowrinathan, Karina Sergi, Regin Jay Mallari. PMID: 36512813 PMCID: PMC9988324 (available on 2023-12-08) DOI: 10.1227/neu.0000000000002275
9. Single-dose psilocybin treatment for major depressive disorder: a randomized clinical trial.  
Raison CL, Sanacora G, Woolley J, Heinzerling K, Dunlop BW, Brown RT, Kakar R, Hassman M, Trivedi RP, Robison R, Gukasyan N, Nayak SM, Hu X, O'Donnell KC, Kelmendi B, Slosower J, Penn AD, Bradley E, Kelly DF, Mletzko T, Nicholas CR, Hutson PR, Tarpley G, Utzinger M, Lench K, Warchol K, Gapasin T, Davis MC, Nelson-Douthitt C, Wilson S, Brown C, Linton W, Ross S, Griffiths RR. *JAMA.* 2023 Sep 5;330(9):843-853. doi: 10.1001/JAMA. 2023.14530. PMID: 37651119

## BRAIN TUMOR

10. A real-world integrated outpatient palliative and supportive care clinic in a regional community neuro-oncology practice.

- Dominique Celestino, Deepna Chand, Keith Robert-Quinn, Minhdan Nguyen, Judy Truong, Jared Chow, Emmaline Mauritson, Naveed Waggle, Jose Carrillo, Tiffany Juarez, Garni Barkhoudarian, Santosh Kesari, Akanksha Sharma. *EOLP-07. Neuro-Oncology*, 25(Supplement\_5), v114-v114 (2023).
11. Activity of pemetrexed in pre-clinical chordoma models and humans.  
Kesari S, Wang F, Juarez T, Ashili S, Patro CPK, Carrillo J, Nguyen M, Truong J, Levy J, Sommer J, Freed DM, Xiu J, Takasumi Y, Bouffett E, Gill JM. *Sci Rep.* 2023 May 5;13(1):7317. doi: 10.1038/s41598-023-34404-4. PMID: 37147496
12. Advancing personalized medicine in brain cancer: exploring the role of mRNA vaccines.  
Lin F, Lin EZ, Anekoji M, Ichim TE, Hu J, Marincola FM, Jones LD, Kesari S, Ashili S. *J Transl Med.* 2023 Nov 18;21(1):830. doi: 10.1186/s12967-023-04724-0. PMID: 37978542
13. An expanded safety/feasibility study of the EMulate Therapeutics Voyager™ System in patients with recurrent glioblastoma.  
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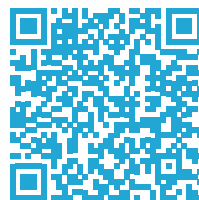
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