

The past year at Pacific Neuroscience Institute was one of amazing growth and transformational milestones. The year ahead is shaping up to be even more momentous.

At PNI our mission is to:

- Provide personalized, precision neuroscience clinical care.
- Advance the neurosciences and brain health through novel research and clinical trials.
- Train and educate the next generation of clinician and research neuroscientists.
- Educate patients and the community at large on vital neuroscience issues.

We are pleased to present an overview of our 2017 accomplishments and what's on the horizon for 2018. We hope you will join us on this journey into the future of neuroscience care and discovery.

Sincerely,

Daniel F. Kelly, MD, Chester F. Griffiths, MD, FACS, Santosh Kesari, MD, PhD, and Howard R. Krauss, MD
Pacific Neuroscience Institute Founders



HIGHLIGHTS



NEUROSCIENCE CLINICAL CARE

2017 was a year of <u>expansion and alignment</u> beyond Providence Saint John's Health Center for our PNI physicians and clinics. Starting in February, PNI neurosurgeons and interventional neuro-radiologists began providing care at Providence Little Company of Mary Medical Center Torrance and San Pedro Hospitals. In September, PNI Medical Group and its 17 physicians officially joined with Providence Health & Services. In November, our PNI Outpatient Clinic opened at Providence Little Company of Mary and in December, PNI Medical Group aligned with Facey Medical Group to provide neuroscience care to their patients. New initiatives included the Autoimmune Disorders Program and Family Caregiver Program.

2018 promises further growth. Our PNI

Outpatient Clinic at 2125 Arizona Blvd., across from the Saint John's Emergency Room, will open for patients in Spring 2018. The PNI Medical Group will add more neurosurgical, neuro-oncological, neuro-interventional and ENT faculty. In addition, we will be helping Providence achieve Comprehensive Stroke Center status at Little Company of Mary and Saint Joseph's Medical Center in Burbank, and Thrombectomy-Capable Stroke Center status at Saint John's Health Center.



CLINICAL TRIALS & RESEARCH

2017 was a year of amazing progress and productivity in opening novel clinical trials and peer-reviewed publications in the realm of benign and malignant brain tumors, pituitary tumors and stroke. In total, PNI and the John Wayne Cancer Institute had over 20 neuro-oncology clinical trials open for enrollment, including two surgical clinical trials related to glioblastoma (GBM) and stroke. PNI/JWCI was the lead enrolling center worldwide for the Medicenna Convection-Enhanced Delivery trial of MDNA55 for recurrent or progressive GBM and the lead enrolling center worldwide for the Sunovion Phase 2 study of

modified stem cells in patients with chronic motor deficit from ischemic stroke. PNI faculty also published over 30 peer-reviewed neuroscience papers.

2018 will see numerous new PNI clinical trials opening for our patients with primary brain cancers, metastatic brain tumors, pituitary tumors, and neurodegenerative diseases. We also hope to publish multiple manuscripts that are currently works in progress. Several new grant applications in brain tumors will also be submitted.



TRAINING & CONTINUING MEDICAL EDUCATION

2017 was exciting on the training and education front with a total of 4 PNI neurosurgical fellows including 1 clinical fellow and 3 visiting international fellows from China and Chile. We established the PNI Neuroscience Internship Program with Pomona College for undergraduates interested in a career path in the neurosciences and/or medicine. The Skull Base and Endoscopic Microdissection Laboratory has continued to be a platform for innovation and fellowship training in minimally invasive skull base surgery, neuroanatomical dissections, and technology and approach advancements in keyhole surgery. Finally, in the fall of 2017, PNI hosted the first annual Pacific Neuroscience Symposium, a 2-day continuing medical education event for doctors, as well as the 9th Annual Neuroscience Nursing Symposium.

Throughout the year, PNI professors presented at multiple national and international conferences across the neurosciences.

2018 will see us expanding our PNI fellowships into neuro-oncology and ENT/otolaryngology, and continuing our PNI Neuroscience Internship Program with Pomona College. We will be the local host for the upcoming International Society of Pituitary Surgeons meeting in San Diego in February, are planning the 2nd Pacific

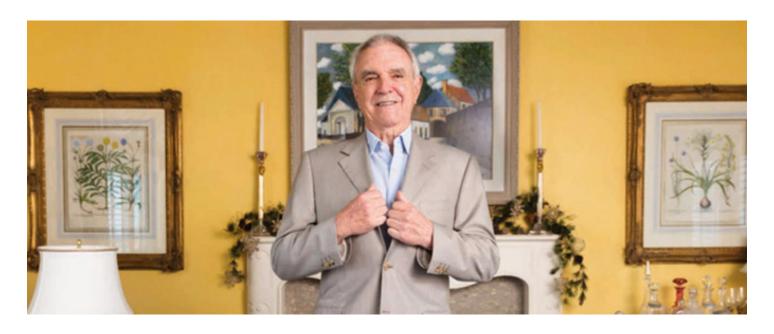
Neuroscience Symposium, and will conduct the 10th Neuroscience Nursing Symposium. Finally, the new and expanded PNI multidisciplinary Microdissection Laboratory is under construction at the John Wayne Cancer Institute and scheduled to open in the spring.



PATIENT & COMMUNITY EDUCATION

2017 was a year of continued support for our patients both in person through our support groups and on the web with numerous educational and informative PNI blogs. Our pituitary patient support group continued its biannual meetings at Saint John's Health Center. Our Movement Disorders Team and Stroke Teams also had multiple patient and community events at Saint John's and at LCM in Torrance.

2018 will be a year with ongoing focus on patient support and education for those with brain tumors, pituitary tumors, stroke, and movement disorders. We will also begin a brain health initiative exploring and recommending ways for people to maximize their brain fitness in both sickness and in health.



PNI FOUNDATION TO SUPPORT PROGRESS & INNOVATION

2017 was the year that PNI Foundation formally aligned with Saint John's Health

Center Foundation. This alignment was kicked off by the PNI Launch Party in January at Creative Artists Agency. Our PNIF mission is to fundamentally advance neuroscience clinical care through novel treatments that optimize brain health and quality of life, to train the next generation of neuroscientists and

clinicians, and to educate patients and the community at large on vital neuroscience issues. We are fortunate to have Jae Goodman, Carole Schwartz and Donna Tuttle on our PNIF Board of Directors, as well as Rusty Doms, Mary Flaherty, Bob Klein and Donna Schweers who serve as PNIF Special Advisors.

2018 will be a year focused on <u>fundraising</u> to meet our mission and expand the availability of innovative life-altering and life-sustaining treatments for our current and future patients with neuroscience disorders. This will be a truly collaborative effort with SJHC Foundation and the John Wayne Cancer Institute aimed at fueling innovative, translational and clinical research projects, clinical trials support, peer- reviewed publications, database infrastructure, neuroanatomical skills laboratory, fellowship training, faculty recruitment, patient education and community outreach. Our first big event of 2018 will be the PNI Clinic Opening in Spring 2018.

PACIFIC NEUROSCIENCE INSTITUTE

2017 BY THE NUMBERS

NEUROSCIENCE CLINICAL CARE



- 8 Centers of Excellence
- 17 Medical Group Faculty
- 15 Associate Medical Group Faculty
- 8 Nurse Practitioners and Physician Assistants
- 3 Medical Group Outpatient Clinics
- 5 Providence Hospitals Affiliated with PNI Medical Group Physicians
- 2205 Medical Group Surgical Procedures
 (Neurosurgical 435 / Neurointerventional 554 / ENT & Ophtho 1216)

RESEARCH & CLINICAL TRIALS



- **32** Peer-Reviewed Publications and In Press
 - 8 Grants
- 23 Clinical Trials & Expanded Patient Protocols
- 71 Clinical Trial Patients Enrolled

TRAINING & CONTINUING MEDICAL EDUCATION



- 63 CME Conferences (Weekly, Monthly and Annual)
- 2 Neuroscience Symposiums
- 3 Neuro-anatomy Brain-Cutting Sessions
- 11 Neuro-anatomy Formal Dissections
- 4 Neurosurgical Fellows in Training (Clinical and International)
- 4 Neuroscience Interns (Undergraduate and Graduate)

PATIENT & COMMUNITY EDUCATION



- 4 Patient Support Groups
- **12** Community Events
- **61** Blogs

PNI FOUNDATION SUPPORTS NEUROSCIENCE PROGRESS & INNOVATION



- **7** Board Members
- 9 Fundraising Events

\$1,286,493 Funds Raised in Partnership with Saint John's Foundation