



**PICKUP FAMILY
NEUROSCIENCES INSTITUTE**

Your Support Made a Difference

2018 REPORT TO DONORS

The Pickup Family Neurosciences Institute has steadily expanded since its founding in 2007, adding new programs and services, recruiting outstanding neuroscience physicians and investing in the latest technology to continuously provide the highest level of neurological care to our community. Multispecialty physician teams work together on behalf of every patient; their expert care is supplemented by donor supported patient resources such as nurse navigators and advanced facilities.

Philanthropy continues to be the platform for the Institute's ongoing growth and innovation. The recent transformative gift from the Pickup family exemplifies this as does the commitment of all our philanthropic partners. We are pleased to share the progress and advances in neuroscience-based medicine that your support has made possible at Hoag during 2018.



Philanthropists Dick and Donna Pickup with Flynn A. Andrizzi, Ph.D.



Transformative Giving

The Pickup Family's \$15 Million Gift Bolsters Important Neurosciences Programs at Hoag

On October 24, 2017, more than 150 Hoag physicians, leaders, nurses, staff, donors and friends celebrated the ten-year anniversary of Hoag's Neurosciences Institute. A special evening commemorating the Institute's impact on the community was made unforgettable by the announcement of a \$15 million gift from Richard Pickup and his family. Hoag officials responded to this incredible generosity by naming the Pickup Family Neurosciences Institute.

Dick shared that the gift was inspired by two compelling factors: his family's long-time admiration and affiliation with Hoag and the recent loss of a beloved family member to Alzheimer's disease. "There have been breakthroughs in cancer and cardiology and

other areas of medicine, but there is still so much that is unknown about the brain," he said. "From Alzheimer's to addiction and other brain disorders, we have a lot left to learn. I am hoping that in the next 10 years or so we can make significant strides in these areas."

Expanding Early Detection and Prevention

Fueled by the Pickup family's support, this hope is already becoming a reality. The gift has enabled the growth of the Institute's Orange County Vital Brain Aging Program through the acquisition of an informatics platform that facilitates testing for early detection of memory and cognitive impairment. The platform also helps foster research and appropriate intervention for patients found to be impaired. This tool is now being integrated with the primary care practices of the Hoag Medical Group.

"Thanks to the Pickup family's generosity, we are able to serve even more patients who are suffering from or may be at risk of memory and cognitive impairment. Our investment in the informatics platform means we can deploy memory assessment software in our affiliated primary care physicians' offices so more individuals can be screened efficiently and effectively for memory impairment. This improves the quality of health care we can provide to seniors, including lowering health care costs in the long run."

Michael Brant-Zawadzki, M.D.,
Ron & Sandi Simon Executive Medical Director Endowed Chair
and Hoag Senior Physician Executive

Specialty Physician Recruitment

Our donor community has supported strategic physician recruitments in needed specialties including psychiatry, neurosurgery and neurology. Increased visibility of the Pickup Family Neurosciences Institute, due to the Pickup's naming gift, has positioned Hoag to recruit some of the best and brightest. The addition of these new physicians facilitates increased community access to expert, subspecialized care. Meet three of our new physicians:



James Park, D.O.

Dr. Park is helping to expand our epilepsy services in Irvine and Newport Beach. He completed his epilepsy and clinical neurophysiology fellowships at Thomas Jefferson University Hospital in Philadelphia, PA.



Gregory Whitman, M.D.

Coming to our community after serving as the attending physician in neurology at Brigham and Women's Hospital in Boston, Dr. Whitman adds talent to our cognition and memory disorders team. He has published multiple journal articles and specializes in senior balance issues.



Saulena Shafer, D.O.

Dr. Shafer brings her expertise in Parkinson's disease and movement disorders to our community. She served her fellowship in the Muhammad Ali Parkinson Center at Barrow Neurological Institute and most recently was on the full-time neurology faculty at the University of Utah.

Program Updates



Epilepsy Program

Hoag's Epilepsy Program offers comprehensive treatment tailored to each patient's individual needs. Under the leadership of Epilepsy Program Director David Millett, M.D., Ph.D., the program prioritizes a multidisciplinary team approach including specialized support from the Epilepsy Program Nurse Navigator, Sheena Dhiman, R.N., B.S.N., M.B.A., who guides patients through every aspect of their treatment. For many patients, seizures can be controlled with the right medication, but some patients require surgical intervention. Hoag's expert neurosurgeons use the most advanced surgical and imaging technology available to pinpoint the exact location of the brain that's causing the seizures.

Philanthropic support continues to strengthen the program. Already designated a level 3 epilepsy center by the National Association of Epilepsy Centers (NAEC), Hoag's program recently became eligible for level 4 accreditation, which is the highest designation available. Level 4 centers are capable of providing care for the most complex cases.

Serving the Underserved

Thanks to a generous gift from Bill and Nancy Thompson, the Hoag Epilepsy Program is now providing specialized epilepsy care for the uninsured, underinsured and unfunded through a new partnership with the Lestonnac Free Clinic in Orange. The Lestonnac Free Clinic provides free medical and dental care but previously lacked epilepsy services. The Thompson's gift supports epilepsy care provided by Dr. Millett at the Clinic.

For patients at the Clinic whose epilepsy requires treatment beyond medication, Hoag's Community Benefit Program covers the cost of the additional services such as imaging and surgical intervention.

David Millett, M.D., Ph.D., and Sheena Dhiman, R.N., B.S.N., M.B.A.

Hope for Patients Suffering from Neuropathy

Neuropathy is a chronic, incurable condition that causes weakness, numbness and pain. Resources for neuropathy patients are generally limited and care is often fragmented.

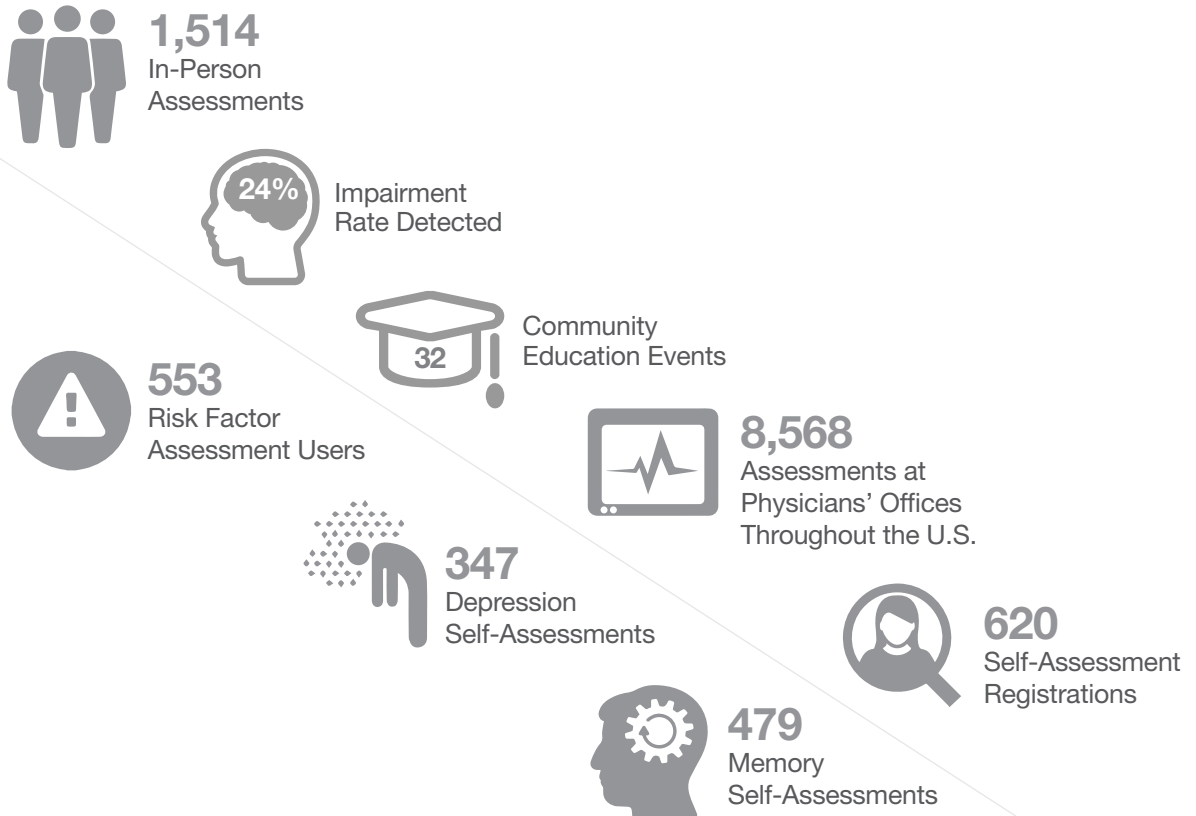
Philanthropist and Hoag donor John Curci set out to change that. His generous gift is laying the groundwork for the development of a Chronic Pain and Neuropathy Center at the Pickup Family Neurosciences Institute. Thanks to his support, plans are underway for this critical resource that will provide patients who have various types of neuropathy, including diabetic, chemotherapy-induced, idiopathic and autoimmune neuropathy, with education and the resources to manage their condition while optimizing quality of life.

Orange County Vital Brain Aging Program

Since its inception in 2010, the Pickup Family Neurosciences Institute's Orange County Vital Brain Aging Program (OCVBAP) has been on a mission to dispel the common misunderstanding that nothing can be done to prevent or delay memory loss or cognitive impairment. OCVBAP empowers the community by providing education, memory assessments and screenings, risk factor management and resources for physicians.

OCVBAP is entirely supported by philanthropy. Inspired by the impact of the Program thus far, longtime Hoag donors Bill and Marilyn Robbins established an endowment that will provide a source of sustainable funding for OCVBAP in perpetuity.

OCVBAP Stats (July 1, 2017 – December 31, 2018)



Mental Health Support for Teens

Today's adolescents face higher rates of mental health disorders such as anxiety and depression, suicidal thoughts and ADHD than ever before. At the same time, drug and alcohol abuse among teens continues to increase and is often linked to mental health disorders. Resources can be scarce and fragmented, leaving struggling teens and families feeling isolated and overwhelmed. Thanks to the support of compassionate donors, the Pickup Family Neurosciences Institute offers answers and hope.

ASPIRE

The ASPIRE (After School Program: Intervention and Resiliency Education) Program at Hoag is an outpatient program for teens ages 13 to 17 with primary mental health disorders and possible co-occurring substance abuse challenges. In the eight-week, after-school Program, teens engage in behavior therapy and expressive arts to develop and practice healthy behaviors, coping strategies, stress management and interpersonal communication skills. Parents or guardians participate in the Program as well, meeting weekly to discuss progress.

Available at Hoag's Newport Beach and Irvine locations, much of the Program is supported by philanthropy. While the services provided are reimbursed by insurance, some families can't afford the associated deductible. Philanthropy supports family scholarships to ensure those who need ASPIRE can access it.

Teen Brain Program

A complement to the ASPIRE Program, Teen Brain brings together a multidisciplinary team of specialists at the Pickup Family Neurosciences Institute to assess, diagnose and suggest treatment plans for struggling adolescents and young adults. The mental health care system is disjointed and difficult to navigate; parents are often left with more questions than answers. Teen Brain allows for accurate and early diagnosis by a team of trusted experts so teens get the care and support they need throughout mental and behavioral health challenges.

Such multidisciplinary comprehensive evaluations are not covered by insurance programs. Thanks to philanthropy, scholarships are available for families in need of financial assistance for this unique service.



Kambria Hittelman, Psy.D., Director of Neurobehavioral Health at the Pickup Family Neurosciences Institute (Center) shown here with the ASPIRE team. Kambria's Left: Sina Safahieh, M.D., Valeri Trezise, LMFT Kambria's Right: Prerna Rao, LMFT, Dave Cook, LMFT



Madison's Story: Back from the Brink

Years of dealing with debilitating, 24-hour pain in her foot that physicians eventually diagnosed as reflex sympathetic dystrophy (RSD) was taking an emotional toll on high school student Madison MacCormick. One of the side effects of RSD is anxiety. One day in math class, Madison experienced a seizure, the first of many. Some days, she'd have up to five seizures and, in between each one, she would wake up screaming in horrific pain.

Madison saw physicians, specialists, psychologists and therapists who finally told her to "deal with it."

Her seizures got to the point that Madison could only attend school part of the year. "I had a chronic headache, 24/7, and they had no idea why," Madison says. "I was so irritated by everyone around me at all times and my mom and I would get in really bad fights."

Beacon of Hope

After two years of varying diagnoses, CHOC referred the MacCormicks to Jerry Weichman, Ph.D., at the Teen Brain Program. Madison underwent comprehensive psychological, neurological and psychiatric evaluations with the Program's integrated team of specialists. She also had a neuropsychological exam.

"Once her evaluations were complete, all four doctors on the case came together for a group consultation," says Dr. Weichman. "Everyone had

independently identified what was more than likely the cause of her seizures and the data collected on the neuropsychological exam confirmed our collective hunches: Madison suffered from extreme anxiety due to an 'I have to' problem and, when she didn't do well academically, her stress and anxiety would skyrocket. Madison was experiencing pseudo seizures as her mind and body reacted from high stress rather than seizures resulting from epilepsy or other neurological conditions."

Turning Toward Well-Being

Upon the start of her treatment, Madison had four seizures the first week and two seizures the second week. By end of the first month, her prescriptions kicked in and she was using the tools she learned in therapy to combat her stress and anxiety. She did not have seizures that week. Today, Madison has been seizure-free for nearly three years, despite her full load of college classes and a part-time job.

Madison was relieved to finally talk with someone who believed her and gave her real tools to calm her anxiety. "Dr. Weichman was the first one who treated me like a human being," she says. "He taught me it's 'here and now' and gave me techniques to stay in the moment and not freak out about my future. He made me more aware of myself."



Ribbon cutting at the opening of the Fudge Family Acute Rehabilitation Center

Fudge Family Acute Rehabilitation Center Opens

Hoag is now one of the few hospitals in Orange County to house a dedicated acute rehabilitation center for inpatients recovering from stroke and other traumatic brain injuries as well as those who've been treated for neurological and orthopedic issues. Thanks to the generosity of Gary Fudge, the Fudge Family Acute Rehabilitation Center opened in June 2018.

A primary advantage of the Center is the streamlined continuum of care for patients. Before opening the Fudge Family Acute Rehabilitation Center, patients had to leave Hoag for residential post-acute rehab. Now, a patient's acute care physician can continue to monitor and check on progress during rehabilitation at Hoag. Patients also have the advantage of a comprehensive team of rehabilitative specialists including physical, occupational, speech and language and recreational therapists, rehabilitation nurses, a nurse navigator and a social worker. The Center's

special design promotes healing and helps patients regain their independence in a homelike environment with advanced technology and innovative options.

"We are so thankful for Gary Fudge's generous donation resulting in a new level of rehabilitative care for the community," Hoag's Director of Rehabilitation Services, Mark Glavinic, PT, DPT, NCS, expresses. "With over 170 patients served already, we are seeing impressive improvement in functional outcome scores. Our ability to get our patients back to their homes has been exceptional, with a community discharge rate of 93%, surpassing national benchmarks. We have been drawing patients from hospitals all over Southern California."

Innovative Technology

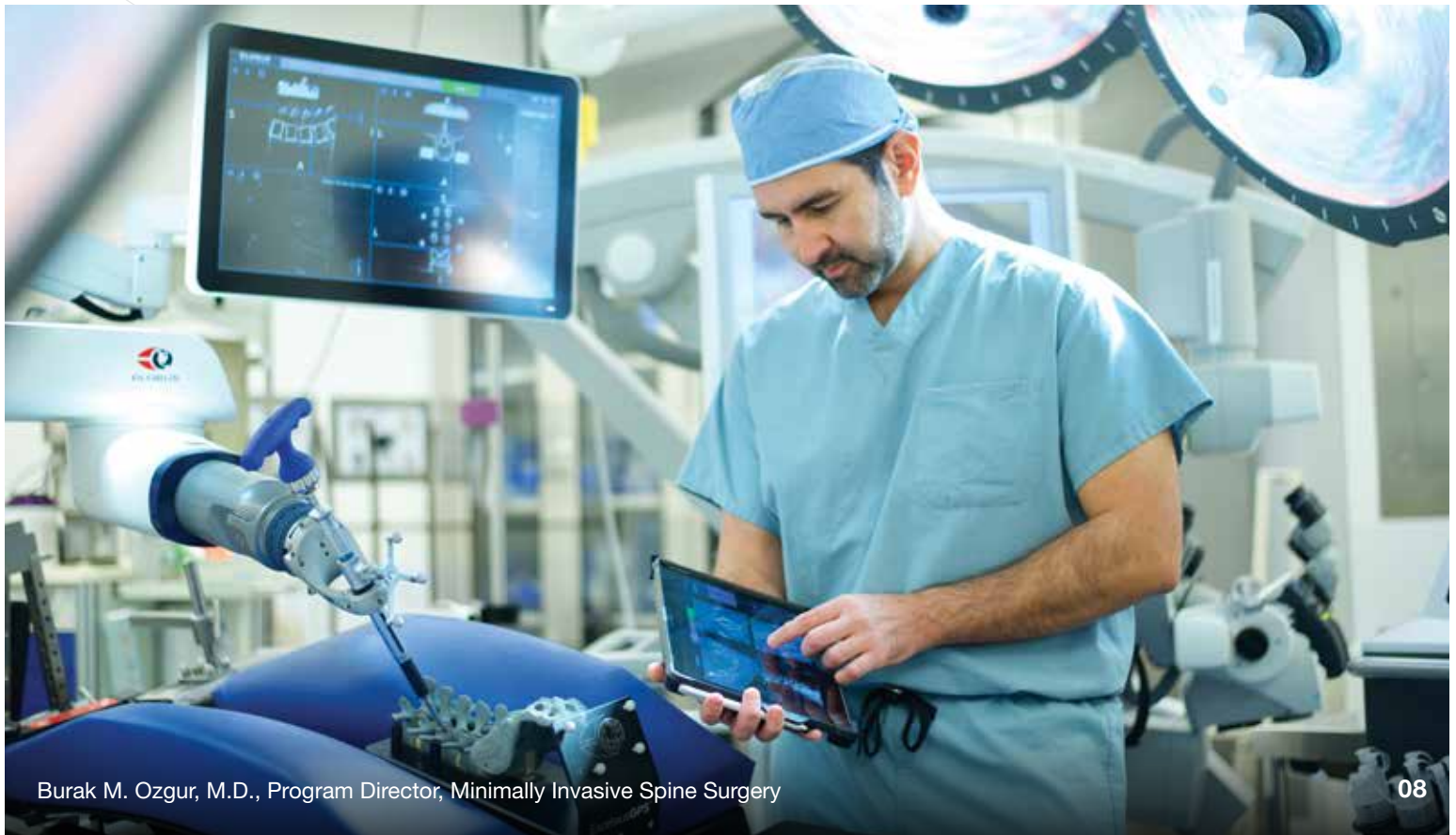
Advances in Minimally Invasive Spine Surgery

Thanks to philanthropic support, Hoag is the first hospital on the West Coast to offer the ExcelsiusGPS™ Robotic Navigation Platform for minimally invasive spine surgery. The new technology platform combines computerized navigation with robotic surgery. It's a powerful tool that helps surgeons perform procedures with greater accuracy and precision, and it reduces patients' pain and recovery time.

Spinal instrumentation, which involves implants such as rods or screws, demonstrates the advantage of robotic-assisted spine surgery. When placing a screw in a very specific area of the spine, accuracy is vital. If the screw is even a millimeter off, the wrong size or if it unknowingly shifts during the procedure,

the results could be disastrous. With the robotic platform, the surgical team can plan the procedure prior to surgery using x-rays of the patient's spine to ensure they select the precise screw lengths, widths and trajectories. The saved images also decrease the need for additional scans, resulting in less radiation exposure to the patient and operating surgeons. During the procedure, the robot automatically detects any changes in trajectory, such as the patient moving, for example, and adjusts accordingly.

These tools decrease complications from complex surgical procedures and enhance the safety and accuracy of minimally invasive spine surgery, giving patients every advantage available.



Burak M. Ozgur, M.D., Program Director, Minimally Invasive Spine Surgery

Awards & Accolades

Philanthropy provides the resources needed to perform at the highest levels, allowing the Pickup Family Neurosciences Institute to achieve national recognition and rankings. We share our recent honors with you.

- Hoag ranked High Performing in Neurology and Neurosurgery by *U.S. News & World Report*.
- Hoag Hospital Irvine was certified a Primary Stroke Center and Hoag Hospital Newport Beach was named a Certified Comprehensive Stroke Center by DNV GL Healthcare.
- Hoag became the first hospital in Orange County to use high-tech 3D simulation software (SNAP) to assist in brain surgeries.
- Hoag was Orange County's first hospital (and one of the first in the country) to offer a vaccine trial for primary brain tumors (NeuroVax).
- The National Association of Epilepsy Centers designated Hoag a level 3 epilepsy center.
- The Orange County Emergency Medical Services designated Hoag a Stroke-Neurology Receiving Center.
- Hoag was named by *Becker's Hospital Review* as a Top 100 Hospital with Great Neurosurgery and Spine Programs.

Thank you

We are grateful for your generous support. Because of you, the Pickup Family Neurosciences Institute continues to lead the way in innovative and patient-centered neurological care in Orange County.

For more information, please contact Hoag Hospital Foundation at (949) 764-7217. Please visit our website at www.HoagPromise.org.