

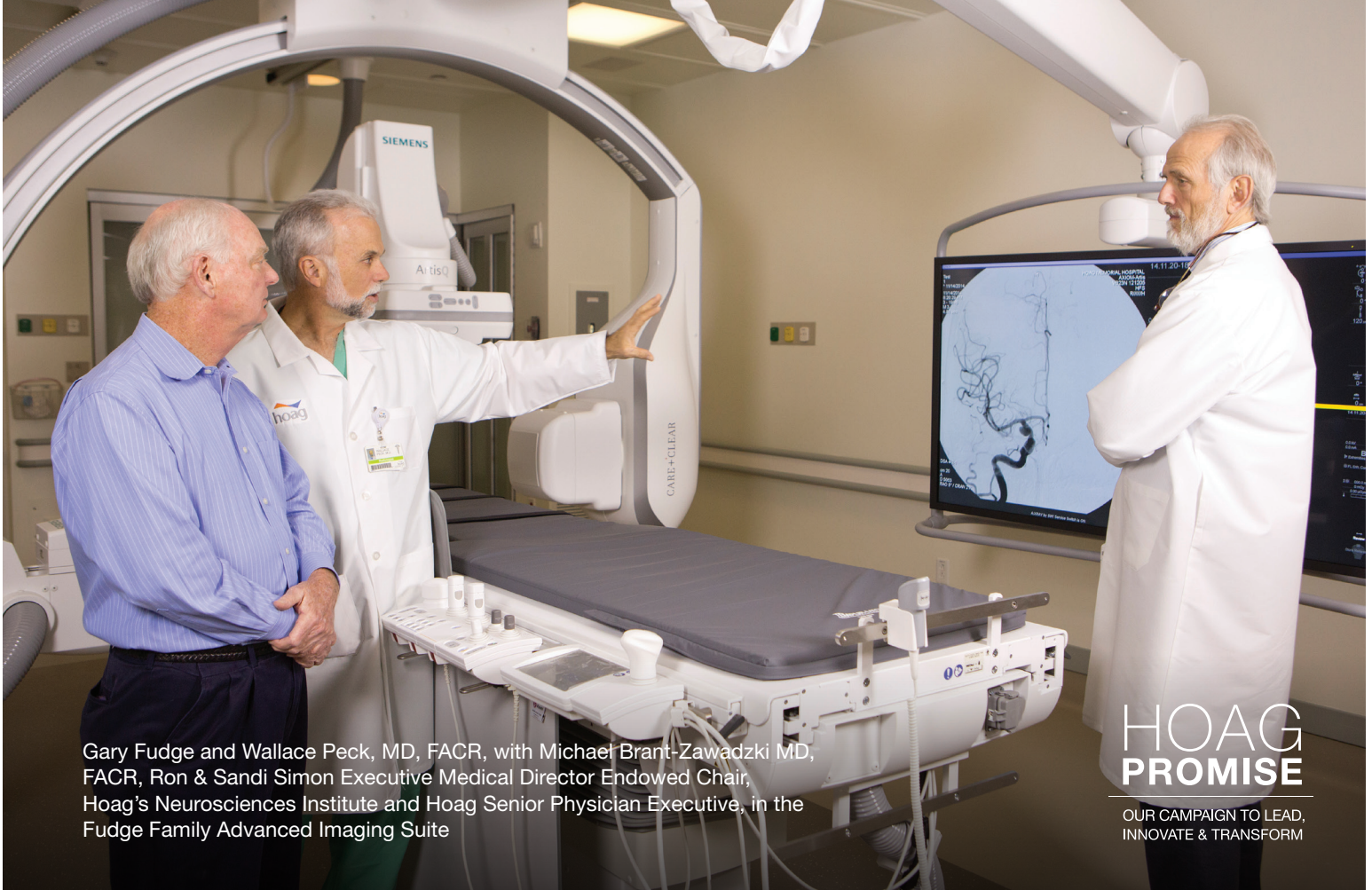


REPORT TO DONORS

# Your giving made a difference in FY 2016

In FY 2016, your generosity funded the groundbreaking work done at Hoag's Neurosciences Institute, a community asset which has grown to become a nationally recognized resource for brain and spine protection, care and treatment.

The following report provides updates and highlights of programs and services that you helped to support. Thanks to you, and our other generous donors, Hoag's Neurosciences Institute supports specialists at the forefront of their respective fields in giving people back their lives.



Gary Fudge and Wallace Peck, MD, FACR, with Michael Brant-Zawadzki MD, FACR, Ron & Sandi Simon Executive Medical Director Endowed Chair, Hoag's Neurosciences Institute and Hoag Senior Physician Executive, in the Fudge Family Advanced Imaging Suite

**HOAG  
PROMISE**

OUR CAMPAIGN TO LEAD,  
INNOVATE & TRANSFORM



Christopher Duma, MD, neurosurgeon and director of the Hoag Brain Tumor Program demonstrates Surgical Navigation Advanced Platform, or SNAP, a virtual reality technology that is revolutionizing brain surgery.

## The Future of Brain Surgery at Hoag Today

### Hoag Uses Virtual Reality Technology to Improve Brain Surgery

Thanks to donor support, Hoag is the first and only hospital in Orange County to treat neurosurgery patients using the same extraordinary virtual technology software platform that powers today's highly immersive and realistic computer games. Developed by Surgical Theater, the software – Surgical Navigation Advanced Platform, or SNAP – uses diagnostic images, such as magnetic resonance imaging (MRIs) and computed tomography (CT), to create an incredibly detailed 3D image of brain tissue, blood vessels, bone and other structures of and around the brain that allows surgeons to run through the surgery before walking into the operating room.

This extraordinarily advanced imaging tool allows neurosurgeons to “fly-through” the brain and precisely rehearse their procedures in order to plan the safest, most minimally invasive surgical approaches – all in 3D. Surgeons can manipulate a 3D model on a touchscreen or wear Oculus Rift virtual reality goggles.

Michael Brant-Zawadzki, MD, FACR, Hoag's Senior Physician Executive and the Ron & Sandi Simon Executive Medical Director Endowed Chair, Hoag's Neurosciences Institute, said this technology is yet another example of Hoag's pioneering, innovative nature. “It allows for increasingly minimally invasive procedures, which are much better for our patients because they result in fewer complications, shorter hospital stays and overall faster recoveries. We are very grateful to our donors who have partnered with us to explore and perfect innovative treatment options to provide the best care possible, all focused on the individual patient need.”





Shown here with a patient, Robert G. Louis, MD, program advisor of the Skull-Base and Pituitary Tumor Program at Hoag.

### More Patients Served in One of the Most Subspecialized Areas of Neurosurgery

For the past two years, Hoag has been home to a dedicated Skull-Base and Pituitary Tumor Program that brings together two of Hoag’s nationally ranked institutes—Hoag’s Neurosciences Institute and Hoag Family Cancer Institute. Over the past year, Robert Louis, MD, program advisor of the Skull-Base and Pituitary Tumor Program at Hoag, has seen a 119% increase in patients.

Significantly, donor support made it possible to bring Dr. Louis, a recognized expert in this very subspecialized area of neurosurgery,

to Hoag. Dr. Louis and his team of ENT physicians, neuroradiologists, primary care physicians, obstetricians, endocrinologists as well as a nurse navigator provide our patients with the most comprehensive program and advanced techniques and technology in Orange County.

## Improved Access to Vital Mental Health Services

### Adolescent Neurobehavioral Health Programs

Philanthropy was instrumental in the launch of ASPIRE (After School Program—Interventions & Resiliency Education) and Teen Brain, two innovative programs within the Neurobehavioral Health (NBH) services at Hoag’s Neurosciences Institute.

**ASPIRE** is an evidence-based intensive outpatient program to treat teen anxiety, depression and other mental health conditions. ASPIRE offers teens and their families practical tools to overcome current mental health concerns and effectively navigate future challenges. The multidisciplinary treatment team combines education as well as multiple counseling and training modalities to prepare teens with healthy coping strategies.

The California Hospital Association now identifies Orange County as a community in crisis due to lack of resources to meet the needs of our growing population. Launched in September, ASPIRE meets this pressing community need. Because of donor support, Hoag was able to hire the right people to run the program, develop curriculum and create vital linkages with Newport Mesa, Huntington Beach and Ocean View school districts.

**The Teen Brain Program** offers psychological testing coupled with neurological, psychiatric and psychological evaluations conducted by a collaborative team of top-tier adolescent specialists. Upon completion of their individual evaluations, the doctors meet to jointly diagnose the patient based on the team’s collective findings. The entire Teen Brain team then meets with the family to discuss their findings and create a personalized course of treatment.

By providing a comprehensive multi-disciplinary evaluation, Teen Brain speeds the process of accurate diagnosis to get to the right treatment faster. Teen Brain is already seeing results with parents, schools and teens themselves reporting tremendous differences in behaviors and relationships. One reason for the improvements is that Teen Brain targets the root problems, not just the symptoms.



SolMar Recovery, Hoag's World-Class Residential Addiction Rehabilitation Facility

### World-Class Residential Addiction Rehabilitation Facility

We are pleased to report that SolMar Recovery is preparing to celebrate its one-year anniversary. Set in a beautifully renovated building on Hoag's Newport Beach campus, the 21-bed residence is overseen by a multidisciplinary clinical team who is on hand at all hours of the day and night to ensure the highest level of evidence-based care for those seeking treatment from drug and alcohol addiction and co-occurring mental health disorders.

Since its launch, SolMar consistently runs at 80% capacity and continues to grow in demand. Were it not for philanthropy, SolMar construction would have taken much longer than anticipated and wouldn't have been available to the community as quickly as it was. Additionally, donor funds made it possible to recruit top talent, including specialized addiction physicians, and allowed for more than a dozen residents to receive full or partial scholarships to complete the 28-day program.

Founded on the scientific understanding that addiction is a brain disease, SolMar Recovery is a component of Hoag Addiction Treatment Centers (HATC) and integrated within Hoag's Neurosciences Institute. This uniquely positions the programs within HATC with immediate access to a range of clinical specialists, lending their expertise when needed to provide the most comprehensive clinical experience.

## Margaret Beall PET/MR Molecular Imaging Suite is First on the West Coast

Thanks to donor support, Hoag houses one of the only PET/MR scanners on the West Coast and the first to be used for routine clinical patient care. In addition, it is used for clinical research for neurodegenerative disorders, including the Center for Medicare Services Amyloid Scanning IDEAS study. Evidence for IDEAS will assess the clinical usefulness and impact on patient-oriented outcomes of a brain positron emission tomography (PET) scan that detects amyloid plaques, a core feature of Alzheimer's disease, in patients with mild cognitive impairment (MCI) or dementia of uncertain cause.

PET/MR is also a very useful tool for staging and monitoring patients with head and neck cancers, as well as other types of cancer, allowing much greater sensitivity to disease with a single examination that minimizes radiation exposure while combining two different technologies (PET, MRI) in one examination.



A patient consults with Teryn Clarke, MD, in the Margaret Beall PET/MR Molecular Imaging Suite

# Orange County Vital Brain Aging Program

REPORT TO DONORS

The Orange County Vital Brain Aging Program (OCVBAP) has established itself as an educational powerhouse that is actively helping Orange County’s aging population to maintain and improve cognitive health. Supported originally by the UniHealth Foundation and with ongoing support from other Hoag donors, OCVBAP has made great strides in:

- Patient and community education
- Physician training and engagement
- Creating tools to improve cognition and brain vitality
- Accessing the most advanced clinical research studies for treating Alzheimer’s

William R. Shankle, MD, the Judy & Richard Voltmer Endowed Chair in Memory and Cognitive Disorders, Hoag’s Neurosciences Institute, says that people can prevent dementia or delay it for many years. “Currently, 12 million Americans have mild cognitive impairment that will become disabling in an average of seven years if nothing is done,” he says. “We now know that cognitive impairment due to these conditions can be prevented. We must take action now.”

## OCVBAP Accomplishments



**4387**  
in-person assessments at 5 locations



**23%** with memory impairment



**7,000** attended community education programs



**1000 +** physicians educated



**19,000** assessments screened in MD’s offices





## Donor-Supported Program Enhancements

### Neurosurgical Spine Program

Philanthropy funded new staff and equipment as well as attendance at a major conference for Hoag's Neurosurgical Spine Program:

- The new Nurse Practitioner for the neurosurgical component of Hoag's Spine Program has allowed us to standardize post-operative care.
- New cervical spine retractors, which are more streamlined and less cumbersome to use, allow us to shorten surgery times.
- Chief of Service for Hoag's Neurosurgical Spine Program, Burak Ozgur, MD, was able to attend the Annual Spine/Ortho/Pain Management Conference where he presented on Hoag's Conservative Spine Program.

### Stroke Program

Hoag is the first in Orange County and second in California to be certified as a Comprehensive Stroke Center - DNV GL Healthcare. Philanthropy funded a full-time data coordinator that allowed Hoag to track the metrics necessary to achieve Comprehensive Stroke Certification. Without this position, it would not have been possible for Hoag to maintain the data necessary to track outcomes and achieve certification.

Donor support has helped Hoag's Neurosciences Institute create a world-class resource for stroke patients. Hoag treats more strokes than any other hospital in California; we have a dedicated stroke "rescue" team armed with the latest technology to open up blocked brain arteries and Hoag's Neurosciences Institute provides the only stroke program where patient functionality is assessed 90 days after admission. A large majority of Hoag stroke patients return to full functionality after a stroke, which few (if any) other programs can document. Hoag's brain aneurysm team is equipped with advanced devices to treat aneurysms non-invasively.



## Funding Innovation: Health Care Navigation and Patient Advocacy Pilot

A life-threatening diagnosis turns a patient's world upside down. It leaves already vulnerable people feeling scared, isolated and overwhelmed. Nurse navigators are a lifeline for those among us who are going through the unthinkable. More than that, nurse navigators act as guides through every step from diagnosis through treatment, recovery and beyond. They are on call to answer questions and explain things to patients and their families. They coordinate appointments with, and communication among, multiple clinicians and specialists. In short, nurse navigators help provide the patient-first care that is essential to Hoag.

Yet, behind the scenes, nurse navigators spend countless hours pulling from a myriad of data sources to track patients, create multiple reports and manage the continuum of care. This administrative burden takes away from one-to-one time with patients. We know there's a better way. Transformational support

from donors Pei-yuan Chia and Kitty Shen has allowed Hoag to pilot the latest nurse navigation innovations at the Jeffrey M. Carlton Heart & Vascular Institute and Hoag's Neurosciences Institute. Redesigning processes and introducing new technologies and applications increases efficiencies. This means more patients and families served. This means more time for serving each individual patient.

Hoag is committed to building on its nurse navigation program to create a best-in-class service that extends from inpatient to outpatient care. Nurse navigators provide an invaluable service that means the world to Hoag patients and their families when they need it most. Philanthropic support is allowing Hoag to bring in the right people and technology together to expand and enhance the program.

## We Share Our Honors with You

Your support has allowed us to perform at levels that are recognized nationally as meeting the highest standards of excellence. We are proud to spread the good news about our recent honors:

### Hoag Named Distinguished Epilepsy Center

Improving the quality of life for our patients and providing individual-centered care has long been the goal of the Hoag Epilepsy Program. Hoag offers the county's only epilepsy monitoring unit outside of the university setting, the latest technology, including minimally-invasive surgical techniques when needed and a dedicated experienced team of clinicians. One of 30 individuals suffer from this disorder, including notable politicians, artists and other professionals. Hoag's steadfast dedication and commitment to this mission was recently honored by the National Association of Epilepsy Centers, which named Hoag a Level 3 Epilepsy Center for 2016-2017.

"This designation is a testament to our expert physicians and specialized approach to diagnosing and managing epilepsy," said David E. Millett, MD, program director of Hoag Epilepsy Program. "With access to the most sophisticated diagnostic technology and imaging techniques, we can accurately identify a patient's specific type of seizure and the region of the brain where the seizures originate to help determine a personalized course of action for each patient."

### Here are highlights of additional Neurosciences Institute recognition:

- Top 100 Hospital with Great Neurosurgery and Spine Programs named by Becker's Hospital Review
- Selected by the Cleveland Clinic as a West Coast location for the Brain and Body program to assess health needs and provide medical care to former NFL players
- Orange County's first hospital, and one of the first in the country, to offer a vaccine trial for primary brain tumor (Neurovax)
- Top 10 percent of hospitals in the nation for stroke from a study by an independent health care research firm
- Hoag's Stroke Program ranks among the top 5 percent in the nation and was chosen as a site for a NIH (National Institute of Health) clinical trial – a Hoag first
- Hoag is the first in Orange County and second in California to be certified as a Comprehensive Stroke Center - DNV GL Healthcare
- Judy & Richard Voltmer Sleep Center was awarded five-year accreditation by AASM

## Thank you

Thank you for your generous support of Hoag's Neurosciences Institute and its innovative programs. Because you have funded our vision, Hoag is a leading provider of brain and spine care and treatment.

For more information, please contact Stacy Sanchez-Hunt at (949) 764-7210 or Stacy.Hunt@hoag.org. Please visit our website: [www.HoagPromise.org](http://www.HoagPromise.org).