



CEDARS-SINAI®

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How can we improve more people's lives?

This fundamental question drives virtually everything we do at Cedars-Sinai.

It's what motivates one of our cancer researchers to drive to her lab on a Sunday morning to check on new results from an experimental study. It's why our pharmacists and nurses now regularly visit nine local skilled-nursing facilities to help coordinate care for patients recently discharged from Cedars-Sinai Medical Center. It's why one of our Heart Institute physicians developed an innovative educational partnership with local barbershops to reduce high blood pressure among African-American men.

We know that a key element in improving more people's lives is increasing access to our care. And we're doing this in myriad ways.

To help meet the growing community demand for Cedars-Sinai services closer to home or work, we now have locations for primary, urgent and specialty care throughout Southern California. We also are affiliating and partnering with other healthcare organizations that share our commitment to excellence.

Affordability is an important aspect of accessibility, so we are doing more than ever to increase our operational and clinical efficiency in ways that reduce our costs — and improve quality. In addition, our free and part-pay care for the uninsured, as well as innovative payment models with commercial health plans, helps more people access Cedars-Sinai.

Our biomedical research also increases access to the best healthcare, not only for those who receive innovative new treatments at a Cedars-Sinai facility but also for those around the nation and the world whose physicians can better treat them thanks to Cedars-Sinai research findings.

Accessibility also requires a robust supply of well-trained physicians, nurses, pharmacists, scientists, technologists and others. We contribute in this area as well, with one of the nation's most highly regarded education programs, training physicians, nurses and others at all levels.

Last but not least is our dedication to community service, which has a growing impact on the lives of the most vulnerable Los Angeles residents. For example, our Community Clinic Initiative is strengthening the leadership and effectiveness of health clinics across Los Angeles that care for more than 750,000 underserved residents.

A crucial element of our success in all these efforts is the strong support of our community and the many partnerships that enable us to accomplish so much together. Thank you for sharing our commitment to improving more people's lives, every day.

Marc H. Rapaport
 MARC H. RAPAPORT
 Chair, Board of Directors

Thomas M. Priselac
 THOMAS M. PRISELAC
 President and CEO

PATIENT CARE

QUALITY CARE CLOSER TO HOME

Cedars-Sinai continues expanding its urgent care, primary care and advanced specialty services to reach more people throughout Southern California. Recent additions include a new urgent care facility in Silicon Beach. Located at Runway Playa Vista, the facility provides convenient access to same-day care, on-site lab and X-ray services, and highly trained teams in internal medicine and pediatric care.

“The urgent care and new offices are part of our ongoing efforts to bring our doctors closer to where our patients and employees live and work,” says John Jenrette, MD, executive vice president of the Cedars-Sinai Medical Network. He notes that primary care physicians, obstetricians and gynecologists, and pediatricians also offer services at Runway Playa Vista, making it convenient for area residents to access expert care. The location serves such nearby communities as Culver City, Mar Vista, Marina del Rey, Playa del Rey and Westchester.

Cedars-Sinai’s recent growth includes bringing health services to the San Fernando Valley, with an increasing number of Cedars-Sinai Medical Network primary care physicians opening offices in this region. The health system is also expanding its cancer, imaging and radiation oncology services across the San Fernando Valley, opening practices and offices that build on a growing network of cancer care locations in Beverly Hills, Santa Monica and West Los Angeles. New offices in Tarzana, Encino and West Hills now offer a range of cancer services, including imaging and medical oncology specialists.

THE NUMBERS:

50,446
ADMISSIONS

92,109
EMERGENCY VISITS

256,075
PATIENTS CARED FOR
BY CEDARS-SINAI
MEDICAL NETWORK

2,166
PHYSICIANS ON
MEDICAL STAFF

3,363
NURSES

2,650
VOLUNTEERS





NATIONAL LEADER IN ORTHOPEDICS

Reflecting the growing role of orthopedics, Cedars-Sinai has established a Department of Orthopaedics (it was formerly part of the Department of Surgery) and recruited prominent orthopedic trauma surgeon Mark Vrahas, MD, to serve as founding chair. Vrahas, who was recently named the Levin/Gordon Distinguished Chair in Orthopaedics in honor of Myles Cohen, MD, joined Cedars-Sinai in 2016 from Harvard Medical School.

Cedars-Sinai's orthopedics program, which consistently ranks among the nation's best, has experienced record clinical and academic growth over the past several years. It recently integrated many world-renowned sports medicine specialists in the Cedars-Sinai Kerlan-Jobe Institute, which has offices throughout Southern California. Its doctors also serve as team physicians for many professional sports teams and athletes in the region and nationwide. The department provides patients with comprehensive orthopedic care specializing in sports medicine, hand, shoulder and upper extremity, hip and knee, foot and ankle, trauma and fracture care, arthroscopic surgery, spine and pediatric orthopedics.

ABOVE: Justin Saliman, MD, an expert at the Cedars-Sinai Department of Orthopaedics, with a patient who underwent minimally invasive surgery to heal a painful condition of the hip joint

PATIENT CARE

HEART

LIFESAVING CARDIAC TEST

A 911 call is usually too late when someone suffers a sudden cardiac arrest, an electrical disturbance that causes the heart to stop beating. The condition is fatal in more than 90 percent of patients. But a new assessment tool developed at Cedars-Sinai brings physicians closer to predicting who is most at risk — and gives them a chance to prescribe preventive medication or implant a defibrillator. The research team, whose findings were published in *European Heart Journal*, employed the 12-lead electrocardiogram (EKG) — a widely available and inexpensive cardiac test — to assess patients' risk. Using multiple EKG data points to evaluate patients, they found that those who scored 4 or above on a scale from 0 to 6 have as much as 20 times the increased risk for sudden cardiac arrest as patients with lower scores.

TO MEND THE SMALLEST HEARTS

A new minimally invasive technique for repairing the most common cardiac birth defect in extremely premature newborns can be performed safely with a high success rate in babies as small as 1.6 pounds, only a few days after birth. The catheter-based approach to repairing patent ductus arteriosus (PDA), commonly referred to as “a hole in the heart,” was developed by an expert in catheter-based cardiac interventions, and a pediatric cardiac surgeon at the Guerin Family Congenital Heart Program. Guided by ultrasound waves, the physician guides a catheter through a vein in the leg to the heart and closes the hole. The procedure can be performed at the bedside and takes only a few minutes. If left untreated, PDA can cause heart failure and lifelong complications. Although PDA usually is diagnosed at birth, some older children and adults have the condition for years before symptoms are noticed and diagnosed.

CANCER

CANCER THERAPY GROWTH

With the addition of a treatment center that offers state-of-the-art cancer therapies in a comfortable, convenient location less than a mile from the hospital campus, Cedars-Sinai is expanding its radiation oncology services. A collaboration with Integrated Oncology Network LLC, the 8,500-square-foot center at 8929 Wilshire Blvd. in Beverly Hills offers Varian TrueBeam linear accelerator technology, a radiotherapy system that delivers fast cancer treatments with pinpoint precision while protecting nearby healthy tissue and organs. The facility is staffed by Cedars-Sinai physicians and employees and is fully integrated into Cedars-Sinai's medical records system. Lab tests, X-rays and reports flow seamlessly between the center and the hospital. The new facility adds to a growing network of radiation oncology services that also includes Cedars-Sinai's main hospital campus and its affiliate The Angeles Clinic and Research Institute in Santa Monica.

LESS INVASIVE, SAFER RADIATION

Of the over 700 newly diagnosed breast cancer cases seen at Cedars-Sinai each year, approximately 500 women have early stage invasive breast cancer. The Saul and Joyce Brandman Breast Center — A Project of Women's Guild at the Samuel Oschin Comprehensive Cancer Institute is at the forefront of evaluating less invasive procedures to maximize quality of life and minimize morbidity. Radiation therapy is typically recommended with breast conserving surgery but may expose healthy organs such as the lung and heart to unnecessary radiation. Intraoperative radiotherapy is a new technology that allows delivery of a single concentrated dose of radiation to the tumor during a lumpectomy, while preserving surrounding healthy tissue, including the lung and heart. This helps to reduce side effects and treatment time. The technology may lead to greater patient satisfaction and reduced costs of treatment.

PATIENT SAFETY

PHARMACISTS PREVENT READMISSIONS

As prescription drugs become more sophisticated and the number of patients needing complicated treatment regimens grows, the Cedars-Sinai Pharmacy Services Department has implemented rigorous processes to prevent medication errors while patients are in the hospital — and after discharge. Pharmacists are alerted when at-risk patients — such as those with complex conditions who take multiple medications — are admitted so they can review medication histories and reconcile them with current doctors' orders. Pharmacists also contact high-risk patients within 72 hours after discharge. Based on physician review, hospital readmission was avoided for 40 percent of these patients as a result of post-discharge intervention to help them understand how to take their medications safely.

SAFER ANTIBIOTIC USE

With the goal of ensuring that patients receive no more and no less antibiotic treatment than necessary, Cedars-Sinai has expanded the use of three-day electronic alerts to reassess these prescriptions. Clinicians who order antibiotics are prompted on the third day of a patient's treatment to indicate their plans to continue, discontinue or modify use of the drug. If treatment is continued, the physician must document the reasons. Physicians also are contacted by pharmacists to discuss guidelines for therapy using antibiotics and other antimicrobials. The alerts are part of an ongoing, system-wide Antimicrobial Stewardship Program aimed at reducing antimicrobial resistance and increasing patient safety.



GPS FOR SURGEONS

Cedars-Sinai neurosurgeons are the first in California to use an advanced, high-definition imaging and navigation system that displays details undetectable by the naked eye or MRI. The device, called BrightMatter Guide, works like GPS, helping surgeons find safer pathways to reach and remove tumors. Until now, neurosurgeons have relied largely on the flat, two-dimensional renderings of the brain produced by conventional MRI scans. The new device provides real-time, brightly colored 3-D images that guide surgeons through the brain's tiny neural connections while avoiding healthy tissue. "This technology allows us to more safely enter the brain without disturbing the important pathways connecting the brain's critical areas of operation," says Keith L. Black, chair of the Cedars-Sinai Department of Neurosurgery, director of the Maxine Dunitz Neurosurgical Institute, and the Ruth and Lawrence Harvey Chair in Neuroscience. An estimated 62,000 primary brain tumors and 150,000 metastatic brain tumors are diagnosed annually in the United States. About one-third of the 600 brain surgeries performed at Cedars-Sinai each year will use the new device.

ABOVE: Neurosurgeons at Cedars-Sinai are the first to employ BrightMatter Guide, which cuts surgery time and improves patient outcomes.

PATIENT CARE

SURGERY

TRANSGENDER COMMUNITY CARE

From gender-affirming surgery to hormone management and mental health counseling, the new Transgender Surgery and Health Program at Cedars-Sinai offers comprehensive, interdisciplinary and individualized services. The program is staffed by specialists dedicated to helping members of the transgender community at every stage of their journeys. In addition to providing clinical care, the team is committed to conducting research to develop better surgical techniques and gender-affirming options for transgender patients. Cedars-Sinai is one of only two academic medical centers in the Western U.S. offering genital reassignment surgery, and has treated patients from across the nation as well as Canada, Asia and Mexico. Few surgeons are trained to perform gender-affirming surgery, so Cedars-Sinai plays a key role in addressing the health needs of the underserved U.S. transgender population, which is estimated to be as large as 1.4 million adults, including 218,000 in California.

SYNCHRONIZED KIDNEY SURGERIES

Nearly 100,000 people are on the current national kidney transplant waiting list, and 3,000 are added every month. An average of 13 people a day die waiting for a new kidney. These alarming numbers prompted a 42-year-old filmmaker to donate his kidney to a stranger in need. The donation led to six synchronized surgeries that netted three healthy kidneys and created a three-way, living donor transplant chain — the longest to date at Cedars-Sinai. The chain involved three altruistic kidney donors and three patients who received lifesaving transplants. The chain was made possible by groundbreaking advances in transplant immunology at Cedars-Sinai that greatly reduce the risk that a patient's body will reject a living donor organ.

LIVER TRANSPLANT MILESTONES

The Liver Transplant Program continues breaking new ground in clinical volume and outcomes. The program performed 87 liver transplants in FY2017, its highest volume ever. In addition, patient and graft survival — the two most common benchmarks for transplant programs — both exceeded 90 percent. The increase in transplant volume is partly a result of a collaboration among the transplant, surgical intensive care unit and transfer center teams that aims to optimize care for critically ill liver patients. The transplant group takes challenges seen in the clinic to the laboratory to pursue discoveries for improving treatment outcomes. For example, they are studying mechanisms of immunosuppression and causes of fatty liver disease as well as new treatments for liver cancer that could increase access to transplants for these patients.

WOMEN'S HEALTH

WHAT MOMS WANT

More than 130 mothers, doulas, midwives, nurses and physicians discussed the importance of shared decision making and understanding roles in childbirth during Cedars-Sinai's fourth annual Birth Community Day. Cedars-Sinai is at the forefront of patient-centered labor and delivery practices that honor women's childbirth preferences while still making safety and evidence-based care top priorities. Maternal Fetal Medicine also launched a national study to help fill a gap in data about what childbirth patients want and need. The findings will be used to inform hospitals of what matters most to women and to improve patient satisfaction.

BEYOND 'BABY BLUES'

For 1 in 7 women who have just given birth, postpartum depression can bring on extreme feelings of sadness and anxiety that last weeks or months if left untreated. Following the 2014 implementation of one of the first hospital-wide depression screening programs in the U.S., Cedars-Sinai has introduced a program to identify new moms who suffer from this mood disorder. Through the Cedars-Sinai Postpartum Depression Screening, Education and Referral Program, these women receive support from a social worker and, if necessary, a psychiatric consultation as well as referrals for follow-up care. The program is partnering with local organization Maternal Mental Health NOW to train nurses so they can educate moms about postpartum depression.

TECHNOLOGY

LAUNCHPAD FOR TECH INNOVATORS

Turning promising ideas into breakthroughs for better care and better health is the goal of the Cedars-Sinai Accelerator Powered by Techstars, an intensive three-month program that provides mentoring and other support for technology innovators. Startups nurtured through this program, now in its third class, have the potential to dramatically improve and streamline healthcare delivery. WELL Health, a company fostered by the first Accelerator class, rolled out its text-messaging app and is live in 135 clinics and doctors' offices at Cedars-Sinai, along with 48 other providers. The app helps administrators and care coordinators reach patients between visits. Another company that went through the Accelerator program, Deep 6 AI, is deploying its artificial intelligence system across Cedars-Sinai to help researchers find patients for clinical trials. Accelerator participants are selected in a competitive process that attracts hundreds of startups around the globe.

AWARDS AND RANKINGS

The measure of a health system’s success is reflected in outstanding patient satisfaction scores, increasing clinical performance initiatives, excellent medical outcomes, ongoing research and academic programs, and national designations and awards. Highlights of these rankings include:

- For the 20th year in a row, Cedars-Sinai won the NRC Health Consumer Choice Award for providing the highest-quality medical care in the Los Angeles region, based on a survey of area households.
- Cedars-Sinai is ranked nationally in 12 specialties and was ranked No. 11 of more than 4,500 hospitals in the nation in *U.S. News & World Report’s* Best Hospitals 2017–18, placing it among a select group of Honor Roll hospitals.
- Cedars-Sinai garnered a fourth consecutive Magnet designation for nursing excellence from the American Nurses Credentialing Center, becoming the hospital with the longest-running Magnet designation in California.
- For the eighth consecutive year, Cedars-Sinai has earned the highest ranking from the federal government for low post-hospitalization mortality based on three conditions: pneumonia, heart failure and acute myocardial infarction.

TECHNOLOGY

APP FOR APPLE WATCH

With a new update to its iOS mobile app, Cedars-Sinai has become one of the nation’s first hospitals to offer technology compatible with Apple Watch. The free app, which pairs with iPhones and can be found in the Apple App Store by searching “Cedars-Sinai My CS-Link,” includes many convenient features such as hospital and urgent care locations, maps and directions to the nearest location, and the ability to call a recently searched doctor directly from the app. The goal is to make health information accessible to patients from any location. The health system currently is preparing to launch Android- and iPad-compatible apps.

VIRTUAL REALITY RELIEF

A deep dive into a calming virtual reality experience — such as swimming with whales or flying over scenic Iceland in a helicopter — can significantly reduce pain for hospitalized patients, a recent Cedars-Sinai study shows. Fifty patients with pain scores greater than 3 on a scale of 10 tried virtual reality therapy, while another 50 patients with similar pain levels watched a standard nature video. Those who wore virtual reality goggles reported a 24 percent drop in pain scores, compared to 13.2 percent for the video group. The study, published online by *JMIR Mental Health*, concluded that virtual reality hijacks the senses in a positive way, making it difficult or impossible to perceive other stimuli — including pain. Next, researchers will conduct a larger study to measure the impact of virtual reality on use of pain medications and length of hospital stay.

ONE-STOP RECORD ACCESS

Patients today often receive care from multiple healthcare organizations, with their medical records stored in various electronic systems that don’t communicate with each other. A solution to this growing problem may come from a pilot study by researchers at Cedars-Sinai Enterprise Information Services. Funded with nearly \$1 million from the U.S. Department of Commerce, the study focuses on software that would make it possible to log in once to gain secure access to medical records at multiple institutions. The current system is especially vexing for physicians caring for patients who are transferred to rehabilitation or other post-acute-care facilities among affiliated institutions, so the study will seek to enroll Cedars-Sinai physicians who regularly see patients at the California Rehabilitation Institute, a Century City facility jointly run by Cedars-Sinai, UCLA Health System and Select Medical.

MORE

RAPID TRIAGE SAVES LIVES

The creation of a Cedars-Sinai Pulmonary Embolism Response Team (PERT) gives patients quicker access to highly specialized care for a potentially deadly condition. With one phone call, physicians whose patients have intermediate- or high-risk pulmonary embolisms can reach experts in multiple disciplines for consultations. PERT includes leading pulmonary, critical care, cardiology, interventional cardiology and cardiothoracic surgery specialists who provide rapid triage and state-of-the-art care in a field in which treatment options have grown exponentially in recent years. The team is available around the clock to offer rapid clinical evaluations and treatment recommendations. In addition to inpatient treatment, they guide physicians in follow-up management and monitoring that is crucial for keeping patients safe after they leave the hospital.

AFFILIATION BENEFITS PATIENTS

Cedars-Sinai and Torrance Memorial have announced plans for a formal affiliation designed to strengthen both organizations’ ability to serve the community and to enhance access, coordination and quality of care for the public. Under the proposed affiliation, each institution will retain its respective board of directors and continue to operate separately but will affiliate under a new parent organization with a new board of directors, to be called Cedars-Sinai Health System. Both entities will continue their longstanding partnerships with local community health organizations. The proposed affiliation will focus on new opportunities for coordination of care between Cedars-Sinai and Torrance Memorial, and joint programs to provide more people with access to medical services, clinical trials and the latest developments in research. Over the past several years, Cedars-Sinai and Torrance Memorial have collaborated on a variety of projects, and established a “telestroke program” to more quickly diagnose and treat stroke patients.

EXPANDED ENDOSCOPY SERVICES

Cedars-Sinai has opened a new Endoscopy Center to better serve a growing number of patients who need gastrointestinal endoscopy procedures, including colonoscopies, upper esophageal endoscopies and sigmoidoscopies. The 5,801-square-foot center, located at the southwest corner of Wilshire Boulevard and Le Doux Road, features three procedure rooms, a physician workroom, a 10-bay pre-procedure/post-procedure area, a nurses’ station and a consult room. Clinicians can see 30 to 50 patients a day at the new center, which is accredited by the Centers for Medicare & Medicaid Services and the Accreditation Association for Ambulatory Health Care. The facility contracts with most major insurance carriers.

PATIENT CARE

AWARDS AND RANKINGS

- The health system received a 2016 Bernard A. Birnbaum, MD, Quality Leadership Award by ranking eighth out of more than 100 academic medical centers participating in a study by Vizient Inc., a healthcare performance-improvement company.
- Cedars-Sinai's Department of Pathology and Laboratory Medicine was named first runner-up for lab of the year by the prominent national publication *Medical Laboratory Observer*.
- Cedars-Sinai was named one of the best places to work in information technology (IT) in an annual list published by *Computerworld*, a national digital magazine for IT and business technology professionals. This is the ninth consecutive year Cedars-Sinai has received the honor.
- The Department of Neurology was designated as an MDA Care Center by the Muscular Dystrophy Association, a leading organization in the fight to cure muscle-debilitating diseases.
- For the fifth year in a row, Cedars-Sinai was included on the 2017 Most Wired Hospitals and Health Systems list, published annually by *Hospitals & Health Networks* magazine.

MORE

PATH TO EXCELLENCE

The Department of Pathology and Laboratory Medicine delivers healthcare services to a large population throughout Southern California in both inpatient and outpatient clinics. The department performs more than 5 million tests annually and receives more than 287,000 outreach requisitions. Recent changes were made to increase patient comfort and clinical outcomes, including: Testing for parathyroid hormones, which helped reduce the time patients are kept under anesthesia by 60 percent; the introduction of an algorithm designed to minimize unnecessary urine cultures by a third, which in turn decreased inappropriate use of antibiotics; and autoverification in the ER Lab, which reduced turnaround times for patients in need of emergency warfarin by more than 20 percent. Last year, the U.S. Department of Health and Human Services tapped Cedars-Sinai to serve as a regional treatment center, which is part of a national network to receive patients with highly communicable diseases.

ORBIT OF CARE

A new multidisciplinary clinic at Cedars-Sinai provides highly specialized care to patients with thyroid eye disease (TED, or Graves' disease) and other complex orbital conditions such as cancer and trauma. The Orbital and Thyroid Eye Disease program offers a team of specialists that includes surgeons, orthoptists, neuro-ophthalmologists, dry eye specialists, endocrinologists and rheumatologists. One in 100 people will be affected by thyroid eye disease, an autoimmune condition in which immune cells attack the thyroid gland, which responds by secreting an excess amount of thyroid hormone. Patients experience symptoms such as severe swelling and bulging eyes, and the disease can lead to loss of vision. The program will lead research efforts on promising therapeutic agents that can interrupt the disease process.

INFECTION FIGHT EXPANDS

The battleground for fighting infections has been extended to eight local nursing homes where Cedars-Sinai works to ensure patients receive the appropriate antibiotic at the right time. The program aims to prevent infections, hospital readmissions and the spread of drug-resistant bacteria. Improper use of antibiotics is a national problem, and the Centers for Disease Control and Prevention estimates that more than 2 million illnesses and 23,000 deaths each year are related to antibiotic resistance. Since 2015, Cedars-Sinai has seen a 20 percent reduction in the number of days patients are treated with antibiotics at three of the nursing homes reporting data, and a 41 percent reduction in the number of days patients are treated with fluoroquinolone, a group of antibiotics that can have serious side effects and can promote antibiotic resistance.

DEPRESSION SAFETY NET

A study showing that 1 in 3 hospitalized patients experiences symptoms of depression calls attention to the importance of screening to improve outcomes. Cedars-Sinai investigators analyzed 20 studies of hospital depression screenings that look for symptoms such as feeling down or hopeless, having little interest or pleasure in doing things, and experiencing significant sleep and appetite changes. The findings, published in the *Journal of Hospital Medicine*, show that these patients are less likely to take their medications and keep up with their outpatient appointments, which could delay recovery, lengthen hospital stays and increase the risk of hospital readmissions. Cedars-Sinai routinely screens all hospitalized adult patients for depression through interviews conducted by nurses within 24 hours of admission. Patients who screen positive for depressive symptoms receive interventions from their admitting physician, social worker and psychiatry team.

BLOODMOBILE'S VITAL MISSION

Reaching out to the community through the Mobile Blood Collection Program brings in potentially lifesaving donations that are critical to transplant programs, cancer therapy, the Neonatal Intensive Care Unit, obstetrics, general medicine and cardiac surgery, among other areas. The mobile program is the main reason Cedars-Sinai is able to maintain its own large blood supply rather than being entirely dependent on outside sources. Blood drives are held regularly in communities throughout the Southland, including Anaheim, Long Beach, Palmdale, Pomona and San Bernardino. The Staples Center hosted recent drives thanks to a partnership with the Los Angeles Clippers. The program's two "bloodmobiles" showed off a new look — a redesigned exterior to mark the mobile program's 10th anniversary. Plans are underway to add a third bus to the fleet.

BODY, MIND AND SOUL

The Spiritual Care Department, an integral part of the interdisciplinary healthcare team at Cedars-Sinai, received a record number of referrals over the past year — an average of more than 1,200 a month. The department expanded its GRACE support program for cancer patients, while its Jewish Expectant Parent workshop remained full every month. Religious observances at Cedars-Sinai also were well-attended, with more than 600 people participating in Yom Kippur services and more than 1,000 receiving ashes on Ash Wednesday. About 300 people attended the annual Christmas concert, and more than 100 participated in the Ramadan iftar meal. With the philosophy that healing involves the whole person — body, mind and soul — the Spiritual Care Department supports patients and families in spiritual and emotional distress. The chaplains represent a broad array of religious faiths and cultural backgrounds.

RESEARCH

THE PERSONAL TOUCH

Cedars-Sinai is leading a revolution in healthcare by translating genetic discoveries into therapies geared to each patient's individual needs and biology. Since debuting in 2016, Cedars-Sinai Precision Health, under the direction of Dermot McGovern MD, PhD, the Joshua L. and Linda Z. Greer Chair in Inflammatory Bowel Disease Genetics, has launched an array of projects using big data, digital technology and other advanced methods to promote care that is as personalized as it is patient-centric. Cedars-Sinai has been successful in receiving funding from California's and President Obama's initiatives on precision health or personalized medicine.

The initiative joins scientists and clinicians with industry partners to create solutions that not only react to disease but also might predict dangers so they can be prevented entirely.

For example, a remote-monitoring system was designed at Cedars-Sinai to accurately forecast cardiovascular conditions. Patients will wear a specialized watch paired to a smartphone or computer that measures activity, sleep, heart rate and stress levels, and self-report anxiety, depression and other health data. By integrating "big data" into patients' medical records, investigators can seek signals that predict who is at risk for a heart attack or stroke.

Other projects that are part of Cedars-Sinai Precision Health include predicting developmental problems in children; finding biomarkers to anticipate individuals' responses to rectal cancer therapies; identifying novel therapeutics to help overcome chemo-resistant ovarian cancer; seeking better ways to detect prostate cancer; testing the effectiveness of radiation and chemotherapy by measuring how quickly tumors can repair the damage such treatments do to the DNA mutations driving cancer; and centralizing a proteomic library to enhance the capability for, and cost-effectiveness of, biomarker discovery. These and other interdisciplinary investigations mark a new dawn in scientific endeavors in which the goal is to match the right treatment to the right patient at the right time for the best possible outcomes.

THE NUMBERS:

MORE THAN
900 ACTIVE
RESEARCH PROJECTS

6 NEW ENDOWED
CHAIRS

52 NEW
FACULTY MEMBERS

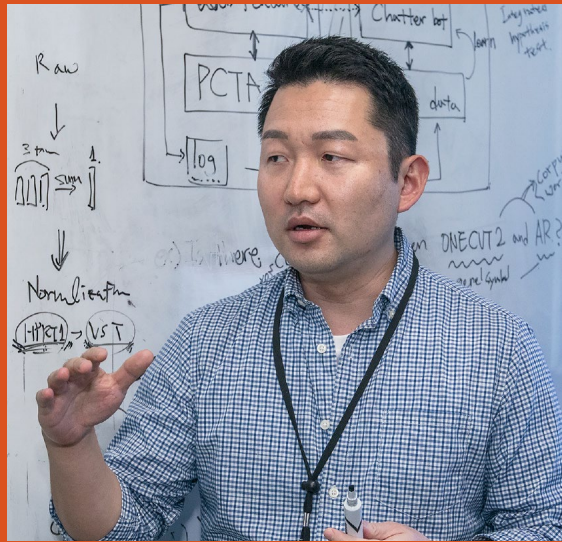
74% INCREASE
IN NATIONAL
INSTITUTES OF
HEALTH AWARDS

MORE THAN
2,500
PUBLICATIONS

504
ACTIVE CLINICAL
TRIALS

\$28.1
million
TECHNOLOGY
TRANSFER REVENUE

82 INVENTION
DISCLOSURES



PROSTATE PROSPECTS

A new way of using genetic data to identify which patients are most likely to develop aggressive forms of prostate cancer — even if their tumors initially seem to pose lower risk — has been developed by Cedars-Sinai scientists. Their findings divide prostate tumors into three subtypes based on gene-activation pathways. Published in *Cancer Research*, this is the first large-scale study to link clinical outcomes to subtypes based on the processes by which genes are turned on and off in cancer cells. The method may help physicians prescribe the most effective treatments for each patient based on how genes are activated in the individual tumor. Another advantage is that the new subtyping can be performed on tumor cells circulating in the blood, which could potentially improve real-time monitoring during treatment. Prostate cancer is the second most common cancer in men in the U.S., affecting about 1 in 7 and causing nearly 27,000 deaths annually. Most tumors grow slowly and are not life-threatening, but certain types of prostate cancer can spread to other organs and be fatal.

ABOVE: Prostate cancer researcher Sungyong You, PhD

RESEARCH

NEUROSCIENCES

BRAIN CANCER GENE IDENTIFIED

A stem cell-regulating gene that strongly affects the survival rates of brain cancer patients has been identified by Cedars-Sinai investigators. Their findings potentially could enable physicians to better predict the prognosis of patients with brain tumors and develop personalized treatments that save more lives. The team spent three years analyzing the genetic makeup of more than 4,000 brain tumors to better understand how glioma cancer stem cells reproduce and how they influence patient survival. The process led to pinpointing ZEB1 as a gene that regulates tumor growth. The analysis suggests that patients born without the gene — or in whom it has become less powerful with age — tend to have lower survival rates. The investigators also note that certain chemotherapies are ineffective in those lacking the gene, so different treatments are required.

DISH IT OUT

Cedars-Sinai scientists assembled a “disease in a dish” model that pinpoints how a defect in the blood-brain barrier can produce Allan-Herndon-Dudley syndrome, a rare and incurable psychomotor disorder. The findings point to a path for treating this syndrome and hold promise for analyzing other neurological conditions such as Alzheimer’s and Huntington’s disease. The dish model showed that the thyroid hormone, which is critical to neuron development, wasn’t reaching the brain. The hormone requires a biomolecule for transportation across the blood-brain barrier. Due to a gene mutation in Allan-Herndon-Dudley patients, not enough of the biomolecule is in place to do the job. The blood-brain barrier protects the brain from toxins circulating in the body’s blood system, but defects can block the biomolecules needed for healthy brain development.

MEMORY LANE

Before scientists can address the question of how we store memories, they need to know which parts of the brain are involved. Cedars-Sinai investigators recently made an unexpected discovery about a type of brain cell, called a persistently active neuron, that is critical to supporting short-term memory. Results indicate that this specific neuron remains active for several seconds when a person is required to memorize an object or image and recall it later. The investigators found persistently active neurons in the medial frontal lobe and were surprised to also find them in the medial temporal lobe. Until now, the medial temporal lobe was thought to be involved only in the formation of new long-term memories. The findings show that both areas of the brain are essential for maintaining short-term memory and rely on the ongoing activity of these neurons for memorization.

ANOTHER BLOW TO BRAIN INJURIES

Two studies led by Cedars-Sinai investigators examined whether a series of blows to the head can lead to amyotrophic lateral sclerosis (ALS). Researchers focused on examining such connections by using rats engineered with a genetic mutation associated with ALS in humans. One study found that a moderate-to-severe, single-episode brain injury did not hasten the onset of ALS. A second study, however, revealed that recurrent, mild injuries to both sides of the brain — like those seen in humans who suffer repeated concussions — brought on earlier ALS development in those with the predisposing mutation. ALS damages motor neurons, leading to muscle atrophy and paralysis. Patients rarely live more than five years after onset. This research provides a deeper understanding of the effects of head injuries on professional athletes, military personnel and others who are predisposed to ALS and other neurodegenerative diseases.

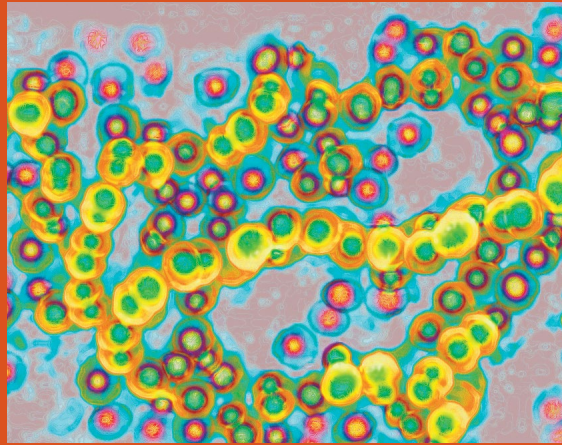
DIGESTIVE DISEASES

SILENT KILLER

The rising epidemic of nonalcoholic fatty liver disease is expected to eclipse hepatitis C as the leading cause of liver transplants by 2020. An especially dangerous form is nonalcoholic steatohepatitis (NASH), which afflicts nearly 16 million Americans. NASH is called a “silent killer” for its lack of symptoms while it scars the liver and develops into cirrhosis — or even liver cancer. A pioneer in tackling these conditions, Cedars-Sinai’s Fatty Liver Disease Program is engaged in a double-blind trial of a drug that targets NASH-caused fibrosis. The program also plans to launch a clinical trial of S-adenosylmethionine (SAM-e), which is used in numerous countries to treat liver disease. SAM-e occurs naturally in the body, and low levels have been shown to increase vulnerability to liver conditions. The ultimate aim is to prevent the need for liver transplants.

GROUNDBREAKING STUDY CONCLUDES

The National Institutes of Health awarded \$10 million to Cedars-Sinai gastroenterology investigators for a project that will cap off the longest-ever study into the genetic and immunological causes of inflammatory bowel disease (IBD). The interdisciplinary research, which began in 1992, revealed that IBD is actually a spectrum of chronic illnesses that causes painful inflammation of the intestines. Crohn’s syndrome and ulcerative colitis are the most common forms. The study also explored how the immune system and fungal communities in the digestive tract interact to affect the disease. This wealth of new information will facilitate more precise diagnoses and novel therapies tailored to the biological makeup of each patient.



DEADLY BACTERIA TURNED GOOD

In a multinational study, Cedars-Sinai investigators helped identify an experimental treatment that uses a potentially deadly bacteria as a lifesaving treatment for kidney transplant patients. They found that treating patients with the bacteria-derived drug before transplantation significantly reduced — and in most cases eliminated — antibodies that can cause rejection or failure of new organs. These antibodies, human leukocyte antigens (HLA), are naturally present as an immune system defense against bacteria, viruses and other potentially harmful invaders, but also can attack a newly donated organ. Rejection risks rise dramatically for those with high exposure to foreign HLA — such as through blood transfusions, pregnancy or a previous transplant — triggering the immune system to be hypervigilant to invaders. These antibodies persist over a patient's lifetime, causing the body to perceive a newly donated organ as a threat and then attack it. The study, which involved two coordinated investigations and 25 patients treated in the U.S. and Sweden, aims to overcome this overwhelming obstacle to successful transplants. Twenty-four of the patients were transplanted successfully after receiving the therapy.

ABOVE: A potentially deadly bacteria is harnessed into a lifesaving therapy for kidney transplant patients in an experimental treatment developed by Cedars-Sinai investigators.

RESEARCH

DIGESTIVE DISEASES

IBD IN AFRICAN-AMERICANS

Inflammatory bowel disease (IBD) is steadily on the rise among African-Americans. Cedars-Sinai is partnering in the first-ever genome-wide association study of the condition. The research includes 2,345 African-Americans who have IBD and 5,002 who do not. Imaging identified two locations of genes on chromosomes that were uniquely associated with ulcerative colitis — which, along with Crohn's syndrome, is one of the disease's main types. IBD affects more than 3 million people in the U.S., with symptoms that include abdominal cramps, blocked bowels, fever, extreme weight loss and anemia. Although treatments offer some relief, there is no cure. However, the genetic discoveries yielded by this and other projects may open pathways to new therapies and more personalized approaches to aid against IBD.

HEART

I ♥ HEALTH INSURANCE

Research led by Cedars-Sinai shows that health insurance cuts down on cardiac arrest, a condition that kills 90 percent of its victims. Published in the *Journal of the American Heart Association*, the study found that sudden cardiac arrest decreased by 17 percent among previously uninsured adults who gained coverage through the Affordable Care Act. The research focused on adults over 45, since risk increases with age. The difference occurred in ages 45–64, while for people over 65 — who tend to be insured — incidence remained the same. The study was conducted in collaboration with Oregon Health & Science University. While larger studies among more diverse groups of patients need to confirm the findings, they could have major public health implications, as more than 350,000 out-of-hospital cardiac arrests occur every year in the U.S.

YOUNG HEARTS AT RISK

The National Institutes of Health awarded five-year funding to a Cedars-Sinai study that seeks to advance understanding of a potential cardiovascular disease risk factor in young women. Heart disease rates in the U.S. are dropping in every population except this group. The study hypothesizes that premenopausal women with an estrogen-lacking condition are at increased and accelerated risk of cardiovascular disease. The condition is due to stress, under-eating and over-exercising, which can cause estrogen levels to drop so low that some women's ovaries shut off and menstruation ceases. Previous studies of this premenopausal state showed that it can result in conditions such as early-onset osteoporosis and an altered immune response. The study's aim is to reverse these concerning symptoms with a simple estrogen patch.

OPEN-HEART SURGERY 2.0

Open-heart surgery is a lifesaving procedure commonly performed to replace failing hearts, bypass clogged arteries and repair leaky valves. While most patients recover fully, some suffer long-term effects — or fatal heart failure — from stress caused by the operation. Surgeons use a cardiopulmonary bypass machine to perform the heart's functions while it is not beating during a procedure, but because the blood supply to the heart is interrupted, cardiac cells can be injured. Scientists at the Cedars-Sinai Heart Institute examined damaged cells in tissue samples taken from patients before and after surgery. Their work demonstrates for the first time in human hearts that cardiac muscle cells react to this type of injury by both destroying and developing new mitochondria.

CANCER

THYROID SURVEILLANCE

A clinical trial that could significantly change treatment for lower-risk thyroid cancers is being conducted at Cedars-Sinai. The study, the first of its kind on the West Coast, assesses whether active surveillance — an alternative treatment plan for less aggressive cancers — is as effective as immediate surgery. Using active surveillance to monitor thyroid cancer is modeled after a similar observational method that is becoming increasingly common in the treatment of low-risk prostate cancer. The American Thyroid Association has released new guidelines suggesting that this approach is an appropriate option for small, low-risk thyroid cancers. The Cedars-Sinai trial includes physical exams, blood tests and ultrasounds every six to 12 months. Patients can choose to stop surveillance at any time to undergo surgery, and surgery is recommended if the tumor grows over time.

WHERE THERE'S SMOKE

Smoking damages the lungs and also can cause pancreatic cancer, according to a study led by Cedars-Sinai. Investigators developed mouse models that showed precursors of pancreatic adenocarcinoma, the condition's most common type. When exposed to cigarette smoke, the mice's cancerous cells grew and multiplied. The team then found that smoke activated the protein histone deacetylase-3, leading the tumor cells to produce IL-6, another protein, which can alter immune cells to promote cancer instead of fighting it. Fortunately, the research also points to a potential treatment already approved by the Food and Drug Administration. When the scientists administered the drug suberoylanilide hydroxamic acid to the mice, it reversed the effects of smoking, allowed the immune cells to keep their original anticancer function and stopped the development of pancreatic cancer.



GAME ON, BLOOD PRESSURE

Cedars-Sinai researchers are envisioning a new use for virtual reality: protecting people from high blood pressure. Because African-Americans are especially at risk, Cedars-Sinai teamed up with the Black Nurses Association's local Council of Black Nurses (CBN) to launch a feasibility study in West Adams, a historically African-American neighborhood in Los Angeles. Specifically, the aim was to reduce people's intake of salt, a culprit in the condition. Sixty participants received Fitbits, digital blood pressure cuffs, the MyFitnessPal app and virtual reality goggles. They met weekly for dinner, health education and data collection from their new devices, and had twice-weekly calls from CBN nurses. Participants received exercise and nutrition tips, and learned how to interpret blood pressure and cholesterol numbers. During the virtual reality game component, the players flew through their own hearts, brains, kidneys and blood vessels in immersive 3-D to visualize the damaging effects of salt on their bodies. They also could use virtual reality features to alleviate stress — a factor that can contribute to high blood pressure — by spending time at a virtual beach or listening to nature sounds.

ABOVE: A study at Holman United Methodist is testing whether education and digitally enhanced programming using virtual reality can be a treatment for lowering high blood pressure.

RESEARCH

CANCER

MELANOMA REVISITED

Patients who receive standard surgical treatment for melanoma that has spread to one or more key lymph nodes do not live longer than those who forego such procedures, according to research conducted by Cedars-Sinai investigators in one of the largest-ever studies of the deadliest form of skin cancer. Their findings report that immediately removing and performing biopsies on all lymph nodes located near the original tumor does not result in increased overall survival rates. The study examined the most important question facing physicians and those newly diagnosed with the disease: Do patients who have melanoma cells in a limited number of lymph nodes require extensive surgery to remove all the remaining nodes in that area of the body? The results of the new research suggest that the answer is no.

CANCER'S COMPLEXITY IDENTIFIED

A study led by Cedars-Sinai investigators dramatically illustrates the complexity of cancer by identifying more than 2,000 genetic mutations in tissue samples of esophageal tumors. The findings reveal that even different areas of individual tumors have various genetic patterns. These results help explain why it is so difficult to battle cancer by targeting a specific genetic defect. Looking ahead, the investigators plan to apply their analytic techniques to other cancers and explore the significance of the genetic and epigenetic changes identified in the study. This work is fundamental to developing effective, individualized therapies to combat the drug resistance that many cancer patients face during the course of their disease.

TINY CANCER KILLER

A tiny drug-delivery system engineered by Cedars-Sinai scientists could potentially prevent drug resistance and retard the recurrence of glioblastoma multiforme, the most common and aggressive form of brain cancer. Even with maximum treatment, the cancer usually recurs because of its resistance to drugs and radiation. In the study, researchers synthesized a nanodrug, a tiny particle combining a chemical cocktail of drugs that can be given by intravenous injection and carried in the blood to target the brain tumor. Mouse models carried three defective human genes associated with this cancer, and their survival rates doubled when they were injected with the nanodrug. The particle is engineered to permeate the walls of the tumor cells for maximum effectiveness against tumor targets while preserving surrounding tissue.

BREAST CANCER TRIPLE PLAY

Triple negative breast cancer (TNBC) is one of the most aggressive and deadly types of breast cancer. It does not generally respond to common treatments and, unlike other breast cancer types, frequently metastasizes to the brain. Since each TNBC tumor is unique, a Cedars-Sinai research team is developing targeted therapies for TNBC by probing isolated live tumor cells to find differences they can exploit. The aim is to discover which drugs can destroy patient-specific cancer cells, and which properties of a tumor cell can serve as predictors for life-threatening metastatic cancer. The ultimate goal is to enhance cancer diagnostic tools and develop personalized treatment options. The team also is exploring innovative regenerative tissue engineering of the human mammary gland.

WOMEN'S HEALTH

PRETERM PERIL

Pregnant women who experience spontaneous preterm delivery (sPTD) may face heightened danger of cardiovascular disease, according to a study of preterm delivery and vascular dysfunction at Cedars-Sinai. The study examined 20 women with sPTD and 20 women who experienced normal deliveries. Each woman was examined 24–72 hours after delivery to measure vascular function or arterial stiffness. Also recorded were cholesterol levels and markers of inflammation that indicate a higher cardiovascular hazard. The study's first phase showed that the women with sPTD had higher vasodilation, meaning that their blood vessels were more dilated than the control subjects'. In addition to identifying women who are at increased risk of cardiovascular disease, the findings may increase understanding of the mechanisms responsible for preterm delivery.

OF HEARTS AND HORMONES

An imaging study by investigators at Cedars-Sinai suggests that women using hormone replacement therapy to relieve menopause symptoms face a lower risk of death and show lower levels of atherosclerosis — plaque buildup in the heart's arteries — compared to women who do not use hormone therapy. Hormone replacement therapy has long been controversial, as studies associated it with benefits but also risks that include cancer, and women and their doctors must weigh many factors when deciding whether to use it. While this study did not answer all of the remaining questions, it involved a larger number of patients and a longer follow-up time than most other studies, and offers new evidence of potential cardiovascular and survival benefits.



BLOOD SUGAR REGULATORS

While cutting off specific nerves to the kidney might seem destructive, research at Cedars-Sinai has shown it actually could improve insulin's effectiveness in the liver and have a positive outcome for diabetic patients. The liver metabolizes and produces glucose, or sugar, that the body uses for energy. However, in people with diabetes, insulin secreted by the pancreas fails to normalize glucose production in the liver. The mechanism that accounts for this failure has been a mystery, until now. The answer: The kidneys and the liver are communicating with each other to set glucose levels. Using animal models, researchers cut the nerves to the kidneys that had become insulin-resistant from being fed a high-fat diet. After the procedure, the livers had a healthy response to insulin, effectively curing the animals of insulin resistance — a prediabetic condition. Kidney function remained normal following the procedure. The researchers' next step is to pinpoint the most effective method for surgically silencing nerves in human kidneys — then the team can begin investigating the procedure's potential for treating patients with diabetes.

ABOVE: Richard Bergman, PhD, director of the Cedars-Sinai Diabetes and Obesity Research Institute and the Alfred Jay Firestein Chair in Diabetes Research, with Malini Iyer, PhD

RESEARCH

WOMEN'S HEALTH

FERTILE GROUND

A Cedars-Sinai study conducted by investigators in the Center for Fertility and Reproductive Medicine and the Department of Pediatrics found that babies born through infertility treatments are twice as likely to be born late preterm, at 34–36 weeks, and have a higher admission rate to the Neonatal Intensive Care Unit. They also tend to require longer hospital stays and need more aggressive respiratory support, but overall do well with the treatments. The study provided insights into how the underlying genetics of infertility — compared with the fertility treatments — affect pregnancy outcomes. Fortunately, fertility treatments have made great strides in the past two decades. For example, in vitro fertilization is more likely to be successful, and higher-order multiple births, such as triplets, are now rare, also leading to healthier pregnancies for mom and baby.

MORE

SCALE OF RECOVERY

The Braden Scale is a routine nursing assessment to protect patients from bedsores, but a multicenter study headed by Cedars-Sinai has uncovered a vital new use for it: predicting how well patients will recover after liver transplants. The scale rates patients based on their activity levels, mobility, nutrition and other measures of frailty. For the research, published in the journal *Liver Transplantation*, investigators reviewed 341 medical records of patients at Cedars-Sinai and the Oregon Health & Science University in Portland. They found that liver transplant recipients with lower scores were more likely to be nonambulatory at discharge, require physical rehabilitation and have longer hospital stays compared with transplant patients who had higher scores. These results suggest that lower-scoring patients should be put on supervised exercise programs soon after their transplants to improve physical function and preserve quality of life.

PF CHANGE

A major cause of pulmonary fibrosis — which scars the lungs, clogs breathing and has no known cure — has been pinpointed by Cedars-Sinai investigators. They solved the longtime conundrum by revealing damage done to AEC2s, stem cells in adult lungs that are essential to repairing and regenerating epithelial cells. Epithelial cells keep airways open, but pulmonary fibrosis disrupts them, causing fibrous tissue to build up in the lungs. The study, published in *Nature Medicine*, found that pulmonary fibrosis patients had far fewer AEC2s, and those remaining were less able to regenerate. This finding is a major step toward understanding and one day treating pulmonary fibrosis, which affects nearly 100,000 people nationally. The disease often is called “idiopathic,” meaning “unknown,” because the cause usually escapes detection. Patients typically survive only three to five years after diagnosis.

MEND THE GAP

An innovative technique that prompts bone to regrow was used by a Cedars-Sinai-led team of investigators to successfully repair severe limb fractures. If found to be safe and effective in humans, this pioneering method — which combines ultrasound, stem cell and gene therapies — could eventually replace grafting as a way to mend severely broken bones. Current graft procedures require implanting pieces from either the patient's or a donor's bone into the gaps left by the fracture. Surgeries to remove bone implants can lead to prolonged pain and expensive, lengthy hospitalizations. Additionally, grafts from donors may not integrate or grow properly, causing the repair to fail. The new technique could provide a much-needed alternative, since 2 million bone grafts are performed worldwide each year.

GAINS IN PAIN

To address the growing epidemic, Cedars-Sinai researchers are studying the most effective ways for physicians to discuss opioid use with chronic pain patients, with an aim of reducing the impact of pain while curbing overuse of these addictive drugs. The research team will include consumer advocates, addiction specialists and primary care providers who will compare the effectiveness of two established communication strategies to treat chronic pain patients. In the study, computer alerts will prompt doctors to speak with patients before renewing opioid prescriptions and to share educational materials. Studies to limit opioid use may rely on prescription claims data to gauge results, but this project also will use patient feedback, which may be key for devising successful chronic pain management strategies.

SKIP YOUR WHEATIES?

A protocol being developed by Cedars-Sinai investigators may help determine the effects on humans of chemicals called “endocrine disruptors” — and uncover whether such chemical additives in breakfast cereals and other everyday products are making people obese. Previous research has shown that the chemicals examined in this study — butylhydroxytoluene (BHT), perfluoro-octanoic acid and tributyltin — can upset hormone systems in lab animals. This effort is the first to use human stem cells and tissues to document how they may disrupt hormones critical to communication between the digestive system and the brain. BHT produced some of the strongest adverse effects. More research is needed, but the team's chemical-evaluation system may provide a cost-effective method to review the health effects of thousands of chemicals in our environment.

COMMUNITY



PARTNERSHIPS TO BETTER SERVE THE NEEDY

isa Abdishoo, MD, and colleagues at the Los Angeles Christian Health Centers' (LACHC) Joshua House Clinic in downtown's Skid Row care deeply about their homeless patients, many of whom live in makeshift tents just outside the clinic's doors. As Abdishoo, the center's president and CEO, and her team confront the growing need for health services in the area, they've found a resource that bolsters their ability to meet these urgent challenges — the Cedars-Sinai Community Clinic Initiative.

The initiative was launched in 2015 to reduce health disparities for those most in need by strengthening the leadership and effectiveness of clinics across Los Angeles. *“Cedars-Sinai worked hard to understand the biggest challenges clinics face today and designed an initiative that offers support where it is needed most,”* Abdishoo says.

The initiative includes yearlong programs that focus on quality care, financial benchmarking, data analysis and leadership development. Participants receive training and coaching, undertake projects that tackle critical issues faced by their clinics, and network with other clinic leaders to share ideas and resources. Clinic leaders who have participated in the ongoing program now are putting lessons into practice, using new strategies to increase access to care, boost patient satisfaction, improve the referral process, strengthen coordination of care, retain employees and manage health data more effectively, among other enhancements.

Participating clinics have the potential to reach as many as 750,000 residents. The 27 clinic leaders who recently graduated from the initiative's Managing to Leading program are implementing some of the key personal takeaways, including stronger communication skills, and are staying in touch with fellow program participants so they can help each other in continuing to improve healthcare for the most vulnerable among us.

THE NUMBERS:

MORE THAN
\$797
million
CONTRIBUTION FOR
COMMUNITY BENEFIT

PROVIDING COMMUNITY
BENEFIT THROUGH
5,500
TARGETED PROGRAMS
AND ACTIVITIES

MORE THAN
200,000
HEALTH EDUCATION
AND SERVICE
ENCOUNTERS FOR THE
MOST UNDERSERVED
MEMBERS OF OUR
COMMUNITY



A VITAL LINK TO HEALTHCARE

Many low-income, uninsured Latino residents come back year after year for the free health screenings provided by hundreds of Cedars-Sinai staff during the annual Telemundo 52-KVEA Health and Wellness Fair at the Los Angeles Convention Center. A leading partner for the past seven years, Cedars-Sinai performed 5,600 screenings at the 13th annual daylong event, which drew an estimated 25,000 people in January 2017. Numerous attendees had their previous year's test results in hand as they talked to physicians, nurses, dietitians, pharmacists and others. Services included screenings for heart disease and diabetes as well as health education and referrals — with plenty of Spanish-speaking healthcare providers and translators on hand to assist. Sherry Goldman, NP, of the Saul and Joyce Brandman Breast Center — A Project of Women's Guild at the Samuel Oschin Comprehensive Cancer Institute, led a team that offered free clinical exams, education and referrals for free or low-cost mammograms. "Knowing the care we offered might be the only care they would receive for at least another year or longer, it warmed my heart to be able to give back," she said.

ABOVE: Every year, nearly 500 Cedars-Sinai clinicians staff the Telemundo 52-KVEA Health and Wellness Fair.

COMMUNITY

COMMUNITY EDUCATION

PEACE OF MIND

Among the "regulars" at Cedars-Sinai's annual Prostate Cancer Education and Screening Program are a number of men at higher risk than the general population because they are African-American or have a family history of prostate cancer. They learned from Cedars-Sinai healthcare professionals that regular screenings can be the difference between life and death, so the men return to the Ambulatory Care Center each year for the peace of mind that any problems will be caught early. They also recruit family members and friends to attend the event, at which a team of Cedars-Sinai physicians provides free clinical exams and nurses perform tests for blood pressure, prostate-specific antigen, cholesterol, blood glucose and testosterone levels. Participants with test results outside the norm receive referrals for affordable follow-up care.

COACH FOR KIDS

HAPPI AGING

Cedars-Sinai COACH for Kids® — a program of the Maxine Dunitz Children's Health Center — is promoting healthy aging through a partnership with the UCLA Center for Health Policy Research. Cedars-Sinai is one of eight organizations selected to participate in the center's initiative to increase the use of preventive health services by underserved Latino and African-American adults age 50 and older. The COACH for Kids team provides education, health screenings and referrals to parents, grandparents and other caregivers as part of the Healthy Aging Partnerships in Prevention Initiative (HAPPI). Services include free cholesterol screenings and flu and pneumococcal immunizations, plus referrals for free or low-cost breast cancer, cervical cancer and colorectal cancer screenings. HAPPI services are offered on the COACH mobile clinics and at various community sites in South Los Angeles.

HEALTHY HABITS

TEAM PLAYERS

Cedars-Sinai Healthy Habits teamed up with the Los Angeles Clippers to promote exercise and healthy eating initiatives at two elementary schools in the Los Angeles Unified School District. Hundreds of students at Mid-City's Prescott School of Enriched Sciences and Carson-Gore Academy of Environmental Studies participated in exercise and a flash mob dance led by the Healthy Habits staff, joined by Clippers mascot Chuck the Condor and two Clippers teammates played games with students at Mid-City's Prescott School, while others joined the activities at Carson-Gore. The players spoke to students about the importance of exercise and a nutritious diet. The Healthy Habits program brings curricula on nutrition and physical activity to 15 underserved elementary schools. Cedars-Sinai is the official health partner of the Los Angeles Clippers.

PARTNERS IN SERVING WATTS

South Los Angeles residents received free immunizations and education on nutrition and dental health from Cedars-Sinai COACH for Kids® — a program of the Maxine Dunitz Children's Health Center — during the Los Angeles Police Department Southeast Division's National Night Out event. They also gave back by participating in a Cedars-Sinai mobile blood-collection drive. The annual block party on 108th Street in Watts offers entertainment as well as free services and education to help build bridges between law enforcement and the neighborhoods they serve. Cedars-Sinai's two fully equipped mobile medical units are well-known in this underserved area, as the COACH for Kids team makes regular stops in Watts and other South L.A. neighborhoods. Among those who stopped by during the National Night Out event were police officers who thanked the team for their service to this community.

YOUTH EMPLOYMENT AND DEVELOPMENT

BIG DREAMS

It was an occasion to celebrate the achievements of more than 50 Fairfax High School students who were mentored by Cedars-Sinai employees. The students at the Cedars-Sinai Youth Employment and Development (YED) program's Health Careers Academy Annual Showcase, held at Cedars-Sinai in April, were encouraged to dream big. A once-shy young woman is heading toward a career as an aeronautical engineer and astronaut — with hopes of going to Mars. Many others aim for futures in healthcare. During the showcase, they offered poster presentations about experiences that give them firsthand exposure to careers such as cardiologist, nurse practitioner and pharmacist. The two-year YED program provides paid part-time work, mentoring and job-shadowing experiences, and classroom instruction for Fairfax High juniors and seniors. Many YED students become the first in their families to go to college.

FUN FITNESS

Seventy-five Los Angeles elementary school teachers are finding it easier to make fitness fun for their students after participating in a free, daylong physical education training program by Cedars-Sinai Healthy Habits. The teachers, from 15 schools where Healthy Habits educators offer workshops on nutrition and fitness, worked up a sweat trying out activities to introduce to their students. Each participating school received two activity boxes — one for kindergarten through third grade and another for fourth through sixth grades — filled with hundreds of ideas for group activities that develop age-appropriate locomotor skills such as running, galloping, skipping, jumping and hopping. In "Dragon's Tail," for example, children tuck strands of material into their waistbands and chase each other. Those who lose their "tail" go to a designated area to do some jumping jacks before getting back in the game.



NEW DIGS FOR MOBILE CARE

Cedars-Sinai COACH for Kids® mobile medical units are a welcome sight at schools, homeless shelters, public housing developments and health fairs around Los Angeles. Two new COACH for Kids mobile clinics recently went on the road, bringing quality medical care to families in areas such as Pico-Union, Skid Row, South Los Angeles, Watts and Compton. Since 1994, COACH for Kids, part of the Maxine Dunitz Children's Health Center, has provided healthcare services to hundreds of thousands of children and their families in Los Angeles County. The shiny, new, fully equipped mobile vans each include two exam rooms, an intake room, a dispensary for pharmaceuticals and a mini lab for immediate testing. The eye-catching exteriors feature colorful, child-friendly artwork by San Francisco artist Christian Robinson, who grew up in Central Los Angeles. The COACH for Kids team offers a wide range of free primary and preventive care services to some of the city's neediest neighborhoods, including physical examinations, immunizations, treatment for minor illnesses, nutrition education, vision and dental screenings, and referrals to low-cost clinics.

ABOVE: Longtime COACH for Kids driver Donald Washington with one of the new mobile clinics, which he takes on the road to 20 areas throughout Los Angeles

COMMUNITY

COMMUNITY GRANTS

STRONGER SAFETY NET

As part of ongoing efforts to strengthen the safety net for the neediest residents of Los Angeles, Cedars-Sinai awarded \$4.8 million in grants to programs that provide physical and mental healthcare for homeless individuals, at-risk youth, immigrants and other underserved populations. This is the health system's third round of grants to increase financial, administrative and leadership effectiveness at local community clinics and mental health organizations. The Cedars-Sinai Community Clinic Initiative invests in efforts to improve quality of care, financial benchmarking, data analysis and leadership at clinics across L.A. The grants also support 13 mental health partner organizations that treat uninsured and undocumented patients who face a variety of mental health issues, substance use disorders and other challenges. The organizations include the Los Angeles LGBT Center, Amanecer Community Counseling Services and Children's Institute Inc.

STOP ABUSE

With state and federal funding for domestic violence programs declining, a grant from Cedars-Sinai came at a critical time for a Los Angeles LGBT Center program that helps gay and transgender people escape partner abuse, get to LGBT-sensitive shelters and rebuild their lives. The center's STOP Domestic Violence program offers lifelines to people who feel trapped in abusive relationships. One transgender woman from Guatemala found a way out of a violent relationship after a doctor at the LGBT Center noticed bruises on her body during a routine medical exam. The STOP Domestic Violence team helped her get to a shelter and provided mental health counseling and legal support from professionals trained in LGBT domestic violence issues. She now has a steady job, is living with friends and is planning to go to college to develop business skills.

SHARE AND CARE

THE POWER OF ACTS OF KINDNESS

For children struggling with trauma and growing up in violent neighborhoods, small acts of kindness can make a big difference. This idea drives the "Random Acts of Kindness" initiative recently introduced into the curriculum of the Cedars-Sinai Share and Care art therapy program. Recommendations have been integrated into weekly art therapy sessions for students in 28 L.A. schools as well as into parent education and teacher training sessions. For example, children are encouraged to invite someone playing alone to join in their game, and teachers are urged to tell their classes three things they appreciate about them. In addition, parents are asked to set aside a special weekly time for activities with their child. The goal is to create a more empathetic, nurturing school environment, with the same atmosphere developed at home as well.

MORE

STUDENTS PERFORM VIRTUAL SURGERY

The chance to step into the shoes of a brain surgeon is a sure way to capture the attention of middle-school students — and it could spark interest in a future career. This is what Brainworks is all about. For nearly 20 years, the program has brought students from local middle schools to Cedars-Sinai to gain a firsthand look at what neurosurgeons do. The most recent annual event gave 135 students an opportunity to use a new high-definition imaging device to perform simulated surgery and see inside the brains of humanlike simulators — which have pulses and can eat, breathe, speak and blink. In addition to interacting with patient simulators at a virtual surgery station, the students looked at tumors under a microscope, learned about treatments for people with brain tumors and heard a keynote presentation by a nationally recognized researcher.

ATHLETIC SUPPORT

Student athletes at underserved public high schools in Los Angeles learn how to prevent sports injuries — and receive immediate medical care at no charge if they do get hurt — through the Team HEAL program sponsored by the Cedars-Sinai Kerlan-Jobe Institute. The Team HEAL Foundation, which launched the program in 1994 in response to budget cuts in school sports, provides certified athletic trainers at Banning, Carson, Crenshaw and Westchester high schools. Its free services include strength training and conditioning, education on injury prevention and nutrition, treatment for injuries, rehabilitation services and annual physicals. Students also receive mentoring, scholarship opportunities and exposure to careers in health-related fields.

BEAUTY FROM WITHIN

Helping women in underserved communities better understand their cardiovascular disease risk is the focus of Beauty From Within, a new community education and screening program launched by the Barbra Streisand Women's Heart Center in partnership with The Heart Truth, a program of the National Heart, Lung, and Blood Institute. Over a four-month period, the initial phase of the program was completed, with 400 women screened at seven community events, primarily in South and Central Los Angeles. Free risk assessments and screenings to check blood pressure and cholesterol levels took place in sites from churches and community halls to hair salons. The events were organized in collaboration with organizations such as the Los Angeles chapters of the Hispanic Nurses Society and Black Nurses Society, the Philippine Nurses Association of Southern California and the Cedars-Sinai Telemundo Community Outreach Program.

EDUCATION



TRAINING DAYS

Cedars-Sinai is dedicated to training healthcare professionals to provide the highest-quality, innovative care and to advance medicine through biomedical research. Through highly competitive residency and fellowship programs, a growing PhD program, specialized training for nurses and educational opportunities for medical staff, present and future clinicians and scientists enhance their skills and expertise.

Medical students completed nearly 850 rotations in 10 departments during FY2017. *About 424 residents and fellows entered Cedars-Sinai's renowned training programs — which span more than 85 specialty and subspecialty areas — gaining experience in research as well as patient care.* More than 20 residents, fellows and young faculty entered the pioneering Clinical Scholars Program that, in just two years, teaches the skills to build successful futures in clinical science.

Cedars-Sinai and its faculty also are committed to providing educational opportunities for aspiring young biomedical scientists. The Research Internship Program facilitates these experiences with a structured and mentored curriculum that supports learning in basic, translational and/or clinical research. This year, 170 research interns, mostly undergraduate, graduate and medical students from local and national universities, were placed with 56 faculty in 12 departments. This includes 24 high school-aged participants comprising the second class of the Minors In Research initiative. Upon completion of the internship, 10 research interns were hired as employees.

Nearly 2,000 healthcare trainees and professionals practice procedures monthly in the Women's Guild Simulation Center for Advanced Clinical Skills. The 10,000-square-foot facility is fully accredited by the American College of Surgeons and the Society for Simulation in Healthcare. It replicates clinical and surgical settings with high-tech practice patients that mimic their real-life counterparts by simulating breathing, crying — and even giving birth.

THE NUMBERS:

14 RESIDENCY PROGRAMS

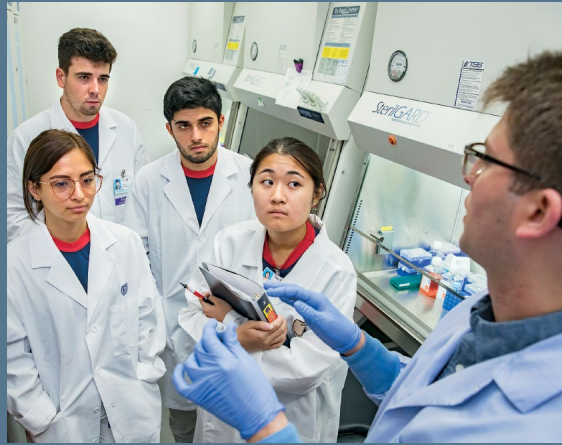
31 GRADUATES IN THE PhD PROGRAM IN BIOMEDICAL AND TRANSLATIONAL SCIENCES AND 8 NEW STUDENTS ADMITTED IN 2016

2 NEW MASTER'S PROGRAMS

85 FELLOWSHIP PROGRAMS

844 MEDICAL STUDENTS ON ROTATIONS IN 10 DEPARTMENTS

138 NURSING RESIDENTS TRAINED



TEEN DREAM

For the sixth straight year, curious teens gained hands-on exposure to stem cell science during Research Week at the Cedars-Sinai Board of Governors Regenerative Medicine Institute. During the summer, 19 Southern California high school students conducted experiments side by side with scientist-mentors in the institute's laboratories at the Advanced Health Sciences Pavilion. They learned about lab safety, toured imaging and research facilities, and attended lectures by Cedars-Sinai experts on the front lines of medical research. At the program's conclusion, the students, working in teams, presented their research findings to members of the Cedars-Sinai scientific community and fielded questions, just like real investigators. The students were drawn from the Cedars-Sinai Youth Employment and Development and Teen Volunteer programs. They competed for slots in Research Week based on their grade point averages, essays and other criteria. This year's diverse class included 10 girls and nine boys from public and private schools. For such students, Research Week provides an invaluable opportunity for exploration in a leading-edge facility — as well as a stepping stone to a career in medicine and science.

ABOVE: Research associate Jordan Nunnelee instructs area high school students Laura Elizarraras, Wyssanie Chomsin, Robert Sher and Andre Rabizadeh in a lab at the Cedars-Sinai Board of Governors Regenerative Medicine Institute during the 2017 Research Week.

EDUCATION

GRADUATE EDUCATION

MASTERY OF HEALTH DELIVERY SCIENCE

The new master's degree in Health Delivery Science at Cedars-Sinai's graduate school trains students in the methodology of delivering valuable healthcare by improving quality while reducing costs. The program teaches skills that are critically important in managing the complex healthcare marketplace, which increasingly rewards medical providers for value of care. The curriculum focuses on four core pillars: data analytics, health informatics, healthcare financing, and performance measurement and improvement. Students are paired with a research or operational team at Cedars-Sinai and work directly on the front lines of healthcare delivery, with access to the latest advances in digital health, including wearable biosensors, social media analytics, smartphone apps and clinical informatics. The executive-style program spans 20 months and features evening classes to attract working clinicians, researchers, executives and administrators from the fields of healthcare, insurance, pharmaceuticals and biotech.

FIRST-IN-KIND MS IN MRI

Cedars-Sinai continues to expand its graduate school, introducing a master's degree in Magnetic Resonance in Medicine, the first of its kind in the United States. The newly accredited program focuses on how MRI is applied to biomedical research and medicine. In two years of study, students master the fundamentals of using MRI for state-of-the-art medicine, becoming proficient in technical development, research methods and clinical applications. The coursework includes completing an individualized research project and a hands-on internship led by distinguished scientists and physicians. Graduates are prepared to serve as supporting scientists in clinical settings, research associates in imaging research centers, or research or application scientists. Since 2015, the Department of Biomedical Sciences program has tripled its master's degree offerings.

NURSING EDUCATION

SPECIALTY RN WORKFORCE

The Geri and Richard Brawerman Nursing Institute, created in 2002 to address the increasing demand for specialty nurses, continues its commitment to quality education and opportunities for Cedars-Sinai's nursing workforce. In FY2017, the institute provided clinical training for over 800 undergraduate and graduate nurses, with a 95 percent retention rate of all nurses and 99 percent for first-year nurses. From 2004 to 2017, the program increased the number of nurses with specialty certification from 11 percent to 81 percent. Over the same time period, the number of nurses with baccalaureate and master's degrees increased from 50 to 86 percent. Both percentages significantly exceed the national average. Additionally, the institute offers more than 100 continuing education courses annually while providing preceptor experiences and clinical rotations every year for students from more than 20 affiliate nursing schools.

RESEARCH EDUCATION

POSTDOCS PIVOTAL TO RESEARCH

Postdoctoral scientists, both in-house and visiting, make critical contributions to Cedars-Sinai's increasingly robust research initiatives. The 144 members of the Postdoctoral Scientist Program play important roles in the institution's commitment to expand the horizons of medical knowledge — partnering on active research projects, performing hands-on lab work and analysis, and providing lab training to graduate students. In return, they receive up to five years of advanced training under faculty members, with the goal of optimizing their career prospects within their unique interests. Cedars-Sinai postdocs are encouraged to pursue careers in academia, industry or other research-related areas based on their skills and talents, and receive support and guidance from experienced professionals.

FELLOWSHIPS

FELLOWSHIPS FOR SPIRITUAL CARE

Cedars-Sinai's Spiritual Care Department introduced a fellowship in Clinical Pastoral Education (CPE) to provide advanced training for theological students and clergy from all faiths. The program is open to board-certified chaplains who have completed their primary CPE training — at least 1,600 hours of interfaith education in a clinical setting. The fellowship offers two tracks. One is Chaplaincy Specialization, a yearlong program focused on a department of the student's interest, such as palliative care, oncology or outpatient care. Students pair with staff and a chaplain to provide supervised spiritual care to patients and families. The other is the Certified Educator Education track, a three- to four-year program designed to teach chaplains how to train other spiritual advisers and leaders. Cedars-Sinai's CPE program was fully accredited in 2015, and the fellowship admitted its first student this year.

VOLUNTEERS

RETURN OF PRE-HEALTHCARE VOLUNTEERS

Undergraduate and post-baccalaureate students interested in becoming physicians receive valuable hands-on experience through the Cedars-Sinai Pre-Healthcare Volunteer Program, which recently relaunched after a two-year hiatus. Student volunteers — who are all committed to attending medical school — shadow physician-mentors and observe patient care in clinics, patient rooms and operating rooms. They also attend executive leadership meetings, grand rounds and lectures. Participants further explore the calling to study medicine and discover a deeper appreciation for the demanding requirements of a busy physician. The eight- to 10-week program accepts new students in three rotations every year. Ten students graduated in the first rotation of the program's return, which more than doubled to 22 in the second rotation.

THE CAMPAIGN FOR CEDARS-SINAI

thank you • gracias • תודה • Спасибо • danke • 多謝 • asante • متشكراً • merci • धन्यवाद
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GRATITUDE IN ACTION

Every day, Cedars-Sinai is charting the future of breakthrough medical discovery and clinical care. Its progress at the forefront of leading-edge research and treatment is a product of inspired collaboration among its many stakeholders: physicians, surgeons, scientists, patients and the many dedicated investors whose commitment makes this work possible.

In 2011, Cedars-Sinai launched an ambitious seven-year, \$600 million fundraising campaign to expand that work, blazing a trail to extraordinary advances capable of transforming outcomes and improving lives. *The Campaign for Cedars-Sinai centers on five distinct themes: disease prevention and control, precision health and targeted therapies, aging and longevity, innovations in healthcare and technology, and education and training.* Across these areas and beyond, Cedars-Sinai has played a global leadership role in reshaping the healthcare landscape — raising the bar on high-impact research and quality care with tangible benefits for individuals in this community and around the world.

To date, the campaign has raised more than \$550 million. Generous donors, members of the extended Cedars-Sinai family, have given their time and resources to help realize a powerful vision: next-generation healthcare that makes a difference for, and is accessible to, everyone.

THE NUMBERS:

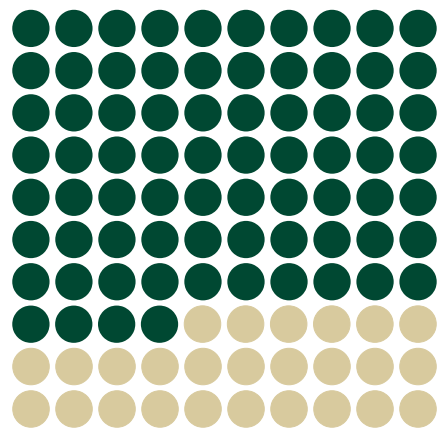
\$600 million
CAMPAIGN GOAL BY 2018, THE BIGGEST FUNDRAISING EFFORT IN CEDARS-SINAI'S HISTORY

6,166
NEW DONORS

8,843
GRATEFUL PATIENT DONORS

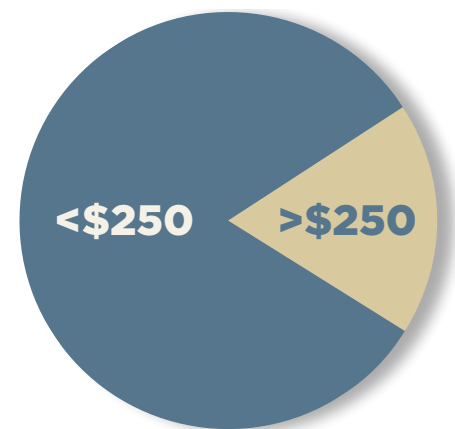
Giving back:

74 percent of donors are **grateful patients**.



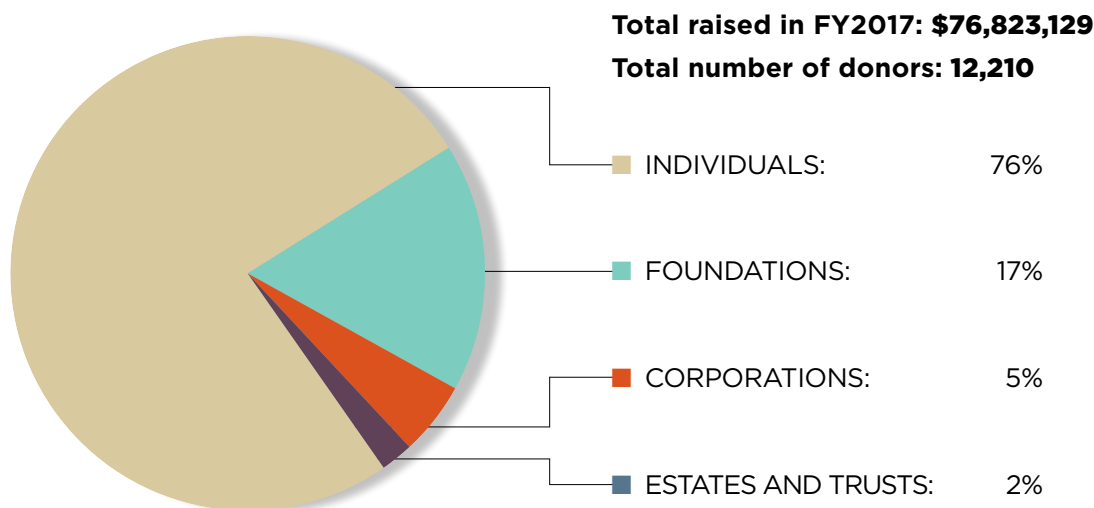
Every gift counts:

82 percent of donors **gave less than \$250**.



Revenue by source:

(July 1, 2016 – June 30, 2017)



Total raised in FY2017: \$76,823,129

Total number of donors: 12,210

DISEASE PREVENTION AND CONTROL

Ari Engelberg

Cedars-Sinai Board of Directors member Ari Engelberg has a connection to the health system spanning three generations — his grandfather, father and uncle all built their medical careers here — but his support for research into inflammatory bowel disease (IBD) is about the future. Engelberg and his wife, Jennifer Barry, DDS, have seen the impact of IBD firsthand through their son’s battle with Crohn’s syndrome, and they want to help other patients by accelerating development of more effective treatments. Their gift supports the innovative work of Stephan R. Targan, MD, director of the F. Widjaja Foundation Inflammatory Bowel and Immunobiology Research Institute, director of the Inflammatory Bowel Disease Center, and the Feintech Family Chair in Inflammatory Bowel Disease. “Ari’s enthusiasm has inspired me to redouble efforts to move science even more rapidly to improve patient care,” Targan says.

Tori Shuken

Vista Automotive Family President Tori Shuken met renowned neurosurgeon and scientist Keith Black, MD, after her father, Steve, developed advanced cancer about 12 years ago. Her father has since passed away, but Black — professor and chair of the Department of Neurosurgery, director of the Maxine Dunitz Neurosurgical Institute, director of the Johnnie L. Cochran Jr. Brain Tumor Center at Cedars-Sinai, and the Ruth and Lawrence Harvey Chair in Neuroscience — performed the brain surgery that gave him more time. The Shukens then learned about Black’s pioneering research, which includes the development of a brain cancer vaccine and techniques to deliver anticancer drugs to tumors more precisely. They have honored Steve’s memory by supporting Black’s research ever since. “Dad would be very pleased,” Tori says.

PRECISION HEALTH AND TARGETED THERAPIES

Ilene and Jeff Nathan

Longtime supporters Ilene and Jeff Nathan recently bolstered the Liver Transplant/Organ Procurement Research Fund with a gift reflecting their respect for Cedars-Sinai’s pioneering work in advancing treatments for liver disease, as well as for the leadership of Andrew S. Klein, MD, MBA, director of the Cedars-Sinai Comprehensive Transplant Center, and the Esther and Mark Schulman Chair in Surgery and Transplantation Medicine. “Andy Klein has built a superb transplant team. They do great work,” says Jeff, who also serves on the Cedars-Sinai Board of Directors. “We like to support Cedars-Sinai’s areas of great expertise to keep them sustainable because we want Cedars-Sinai to maintain its strong leadership position.”

Louis B. Mayer Foundation

Advancing medical research has long been a priority of the Louis B. Mayer Foundation, including innovative studies in women’s heart disease. The foundation awarded its first grant in this arena to a study led by Chrisandra Shufelt, MD, MS, associate director of the Barbra Streisand Women’s Heart Center at the Cedars-Sinai Heart Institute, and director of its Women’s Hormone and Menopause Program. The study explores the relationship between estrogen deficiency in young women and preclinical cardiovascular disease. Judi Farkas, a member of the Louis B. Mayer Foundation Board of Trustees, says Shufelt’s pursuit of a new path toward earlier intervention in heart disease “fits the foundation’s desire to support research that can do the most good for the most people.”

AGING AND LONGEVITY

Bruce and Linda Steinbaum

Bruce and Linda Steinbaum know that even small gifts can add up to big differences in battling conditions such as Parkinson’s disease. In building the Steinbaum Parkinson’s Research Fund, they seek contributions of any size to foster crucial translational discoveries. The Steinbaums’ commitment to fundraising grew out of their heartbreaking experience with Bruce’s late father, Jerry, as the progressive movement disorder overtook his body. They are encouraged by the potential advances arising from Cedars-Sinai research in identifying underlying causes of Parkinson’s and new targets for treatment. “Cedars-Sinai is a remarkable institution, and researchers are doing extraordinary work that could lead to better outcomes for Parkinson’s patients,” Bruce says. “It’s gratifying to do something to help. Hopefully, thousands of people like me are doing the same.”

Nick Gross and Natasha Barritt

The diabetes epidemic has had a personal impact on Nick Gross, director of The William and Sue Gross Foundation, and his fiancée, Natasha Barritt. They offer daily support as Natasha’s mother copes with the challenges of living with diabetes, and her struggles have inspired them to help others as well. Following the lead of Nick’s parents, William and Sue Gross, they give to support Cedars-Sinai’s innovative diabetes research and treatment. They are particularly excited by the work of Ruchi Mathur, MD, and Mark O. Goodarzi, MD, PhD, in the Cedars-Sinai Division of Endocrinology, Diabetes and Metabolism. “We felt so reassured after hearing about research that could lead to new ways to prevent and treat diabetes,” Natasha says.

INNOVATIONS IN HEALTHCARE AND TECHNOLOGY

Ron and Andrea Hein

One year after being aided by Cedars-Sinai orthopedist Sang Do Kim, MD, to fully recover from a serious fall, Ron Hein learned he needed surgery to remove cancerous cells in his esophagus. The care that the retired finance executive received — and the support provided by Cedars-Sinai to his wife, Andrea — inspired the couple to establish the Andrea and Ron Hein Thoracic Surgery Initiative in the Department of Surgery. “Thanks to the people here, it’s almost like the accident and the surgery didn’t happen,” Ron says. Clark B. Fuller, MD, associate director of Thoracic Surgery, performed the complex procedure. (Traditionally done through multiple large incisions, it was instead completed through small incisions and fiber-optic guidance.) “This is an extremely generous and appreciated gift,” Fuller says. “And if it can raise the level of performance of physicians and improve outcomes, then it’s money well spent.”

Russell Grossman

Russell Grossman was so impressed by the care his father received at Cedars-Sinai that he joined the Board of Governors in 2007. He soon met Clive Svendsen, PhD, director of the Board of Governors Regenerative Medicine Institute (RMI), and the Kerry and Simone Vickar Family Foundation Distinguished Chair in Regenerative Medicine. Svendsen shared some of the novel approaches RMI is developing to tackle amyotrophic lateral sclerosis (ALS) and Parkinson’s disease as well as to advance treatments for other devastating conditions through personalized medicine that uses a patient’s own stem cells for therapy and drug testing. Grossman, senior managing director at Bernstein Global Wealth Management, became a strong and steady supporter of RMI’s research. “Cedars-Sinai is one of the leading institutions in the world in this arena,” he says.

EDUCATION AND TRAINING

B. N. Maltz Foundation

The late Ben N. Maltz was a longtime Cedars-Sinai supporter who instilled in his children, Elaine Goldsmith and Chuck Maltz, a sense of commitment to the community and the medical center. Along with Elaine’s son, Russell Goldsmith — a member of the Cedars-Sinai Board of Directors — they have continued his legacy by funding the Ben Maltz Chair in Cancer Therapeutics at Cedars-Sinai through the B. N. Maltz Foundation. The endowment supports cancer research and education. Michael Freeman, PhD — director of the Division of Cancer Biology and Therapeutics Research in the Department of Biomedical Sciences, director of Basic Science Research in the Department of Surgery and vice chair of Surgical Research in the Department of Surgery — has been named the inaugural Ben Maltz Chair in Cancer Therapeutics. A professor in the departments of Surgery and Biomedical Sciences, he helps train the next generation of clinical scientists while studying molecular processes that cause cancer cells to spread throughout the body.

Betty Weider

When Betty Weider visits her cardiologist, Bojan Cercek, MD, PhD, at Cedars-Sinai, she sometimes feels as though she’s “his only patient,” she says, “because of his caring attitude and attention to detail.” Her late husband, Joe Weider — publisher of worldwide health and fitness magazines and father of the modern-day fitness revolution — felt the same. Joe passed away in 2013 at the age of 93. “Dr. Cercek prolonged my husband’s life and, most importantly, the quality of his life, by many years,” Betty says. Her gratitude to Cercek — director of the Coronary Care Unit, co-director of the Atherosclerosis Research Center, and the Eleanore and Harold Foonberg Chair in Cardiac Intensive Care — led her to honor Joe’s memory with a gift that supports cardiology clinical research fellowships and establishes the Betty and Joe Weider Cardiac Intensive Care Unit at Cedars-Sinai. Betty wants others to benefit from the education and research of Cercek and his team for the potential it has to “help many people live longer, healthier, more active lives.”

MILESTONE GIFTS TO CEDARS-SINAI

(July 1, 2016 – June 30, 2017)

Erika J. Glazer

Don S. Levin Trust/Thomas D. Gordon

B. N. Maltz Foundation

Cookie and Ron Markowitz

Nancy Ann Mellen Foundation

Ted* and Hedy Orden and Family

Dolly Parton

Nelson and Claudia Peltz Family Foundation

Margie & Robert E. Petersen Foundation

Women’s Guild

*Deceased

Visit us online at giving.cedars-sinai.edu to learn how you can partner with Cedars-Sinai to improve patients’ lives.



886
LICENSED BEDS



1,665
RESEARCH PROJECTS



260,550
PATIENT DAYS
(approximately 698 per day)



14,523
FULL-TIME EMPLOYEES



765,458
OUTPATIENT VISITS
(approximately 2,060 per day)



2,166
PHYSICIANS ON
MEDICAL STAFF



50,446
ADMISSIONS



424
RESIDENT AND FELLOW
POSITIONS



92,109
EMERGENCY VISITS



2,650
VOLUNTEERS
165,260
VOLUNTEER HOURS



256,075
PATIENTS CARED FOR
BY CEDARS-SINAI
MEDICAL NETWORK



\$797,942,000
CONTRIBUTION FOR
COMMUNITY BENEFIT

FINANCIAL SNAPSHOT

INCOME AND EXPENSES

Revenue from patient care and other sources	\$ 3,300,312,000
Expenses	\$ 2,979,597,000
Operating income	\$ 320,715,000
Loss on extinguishment of debt	\$ (42,143,000)
Investment income	\$ 173,014,000
Net income to reinvest in Cedars-Sinai's mission	\$ 451,586,000

USES OF NET INCOME

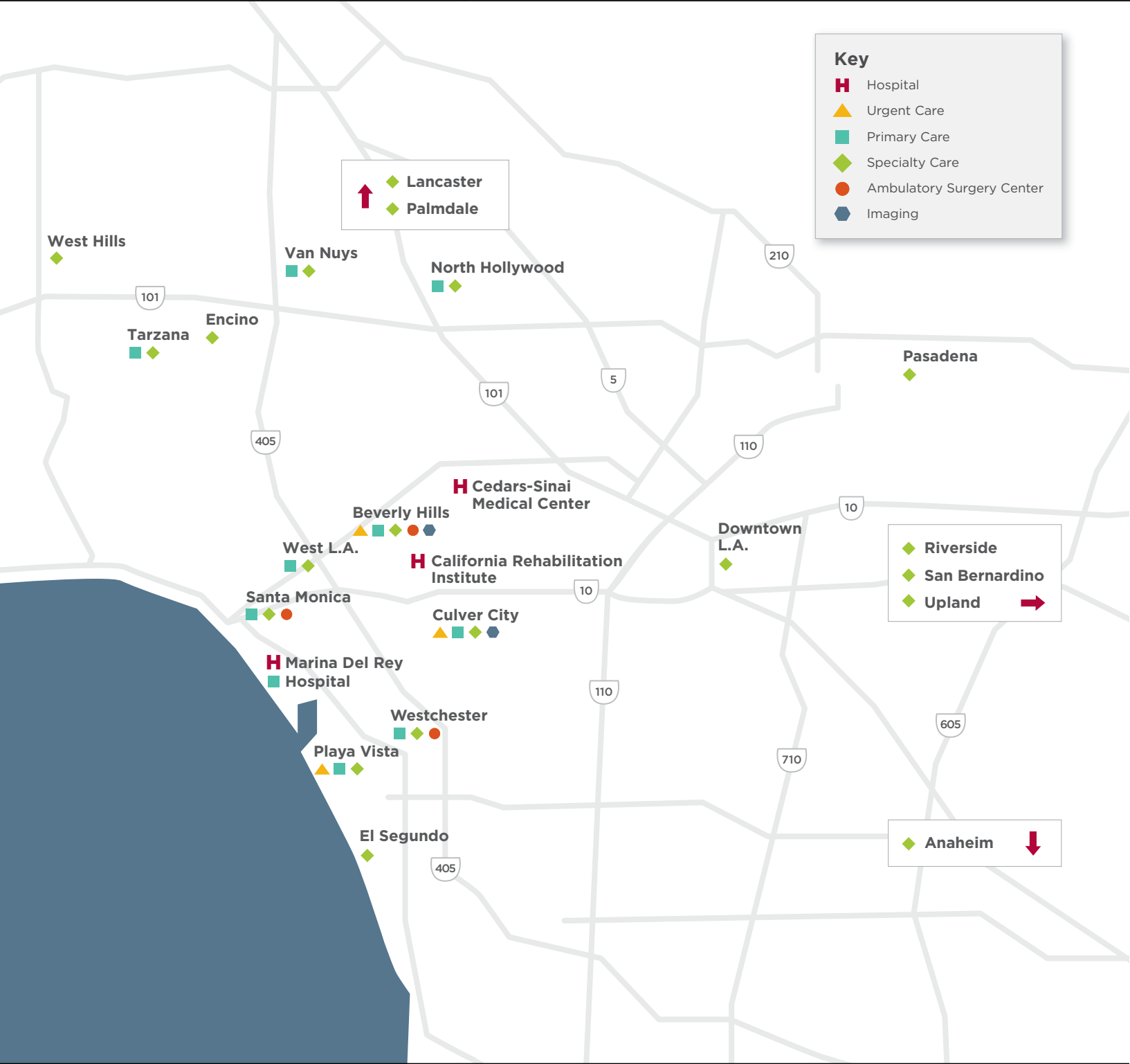
Long-term debt to be repaid	\$ 1,305,430,000
Capital expenditures for facilities, renovation, technology and other	\$ 504,907,000
This year's payment on long-term debt	\$ 22,390,000

COMMUNITY BENEFIT CONTRIBUTION

Unreimbursed cost of direct medical care for the poor and underserved (excludes the unreimbursed cost of caring for Medicare patients)	\$ 111,981,000
Charity care and uncompensated care for the uninsured \$35,999,000	
Unreimbursed cost of caring for Medi-Cal patients \$75,982,000	
Unreimbursed cost of direct medical care for Medicare patients	\$ 378,679,000
Unreimbursed cost of specialty government programs	\$ 1,148,000
Community benefit programs, charitable contributions, and education and training for physicians and other health professionals (includes hundreds of free community education and medical screening/immunization programs offered at the medical center and in local schools, homeless shelters and community centers)	\$ 108,634,000
Research programs	\$ 197,500,000
Total cost of research \$197,500,00	
Less: Research funding from grants (\$125,432,000)	
Net costs of research \$72,068,000	

Total quantifiable community benefit **\$ 797,942,000**

WHERE WE ARE PATIENT CARE



H Cedars-Sinai Medical Center
8700 Beverly Blvd.

H Marina Del Rey Hospital
4650 Lincoln Blvd.

H California Rehabilitation Institute
2070 Century Park East

Urgent Care Locations
8501 Wilshire Blvd., Beverly Hills
10100 Culver Blvd., Culver City
12746 W. Jefferson Blvd., Playa Vista

ANAHEIM
Orthopedics, Sports Medicine
2400 E. Katella Ave.

BEVERLY HILLS
Ambulatory Surgery
450 N. Roxbury Drive, Suites 240 and 600

Cardiology, Executive Health, General Surgery, Integrative Health, Obstetrics and Gynecology, Pulmonology
8631 W. Third St., East Tower

Cardiology, Gastroenterology, Pulmonology
8536 Wilshire Blvd.

Dermatology, Endocrinology, Urology
99 N. La Cienega Blvd.

Endoscopy
8536 Wilshire Blvd., Suite 102

Imaging
8700 Beverly Blvd., Suite 8516S
8705 Gracie Allen Drive
8631 W. Third St., Suite 120 East
127 S. San Vicente Blvd., Suite A-2500
310 N. San Vicente Blvd., Second Floor
250 N. Robertson Blvd.
200 N. Robertson Blvd.
444 S. San Vicente Blvd.
8501 Wilshire Blvd.
99 La Cienega Blvd.
9090 Wilshire Blvd. Suite 200

Oncology
9090 Wilshire Blvd.

Orthopedics, Sports Medicine
8737 Beverly Blvd.

Physical Therapy & Rehabilitation
2070 Century Park East

Primary Care
8767 Wilshire Blvd.

Primary Care, Cardiology, Gastroenterology, General Surgery, Hand Surgery, Infectious Diseases, Sports Medicine, Nephrology, Neurology, Obstetrics and Gynecology, Otolaryngology, Plastic and Reconstructive Surgery, Urology
8635 W. Third St., West Tower

Primary Care, Geriatrics, Cardiology, Endocrinology, Mental Health/Behavioral Health, Ophthalmology, Optometry, Pediatric Reconstructive Surgery, Plastic and Reconstructive Surgery, Pulmonology, Rheumatology
250 N. Robertson Blvd.

Primary Care, Oncology, Orthopedics, Podiatry
200 N. Robertson Blvd.

Primary Care, Pediatrics, Endocrinology, Pain Management
8501 Wilshire Blvd.

Pulmonology
127 S. San Vicente Blvd.

CULVER CITY
Primary Care, Gastroenterology, Imaging
10100 Culver Blvd.

DOWNTOWN L.A.
Cardiology
1245 Wilshire Blvd., Suite 703

Orthopedics, Sports Medicine
1700 E. Cesar E. Chavez Ave.

EL SEGUNDO
Cardiology
390 N. Sepulveda Blvd.

ENCINO
Oncology
16133 Ventura Blvd., Suite 470

LANCASTER
Cardiology
43723 29th St. West

MARINA DEL REY
Primary Care
4644 Lincoln Blvd., Suite 111

NORTH HOLLYWOOD
Primary Care, Nephrology
12660 Riverside Drive, Suite 225

PALMDALE
Cardiology
41210 11th St. West

PASADENA
Orthopedics, Sports Medicine
301 N. Lake Ave.

PLAYA VISTA
Primary Care, Pediatrics, Obstetrics and Gynecology
12746 W. Jefferson Blvd.

RIVERSIDE
Cardiology
3400 Brockton Ave.

SAN BERNARDINO
Cardiology
399 E. Highland Ave., Suite 2

SANTA MONICA
Ambulatory Surgery
2121 Wilshire Blvd., Suite 201

Endoscopy
12400 Wilshire Blvd., Suite 100

Gastroenterology
1919 Santa Monica Blvd.

Oncology
2001 Santa Monica Blvd., Suite 560W

Orthopedics, Sports Medicine
2020 Santa Monica Blvd., Suite 400

TARZANA
Oncology, Surgical Oncology (Breast and Thyroid Cancer)
18133 Ventura Blvd., Suite 200

Primary Care, Nephrology
5525 Etiwanda Ave., Suite 320

UPLAND
Cardiology
625 N. 13th Ave.

VAN NUYS
Primary Care, Nephrology
15211 Vanowen St., Suite 315

WEST HILLS
Oncology
23101 Sherman Place, Suite 410

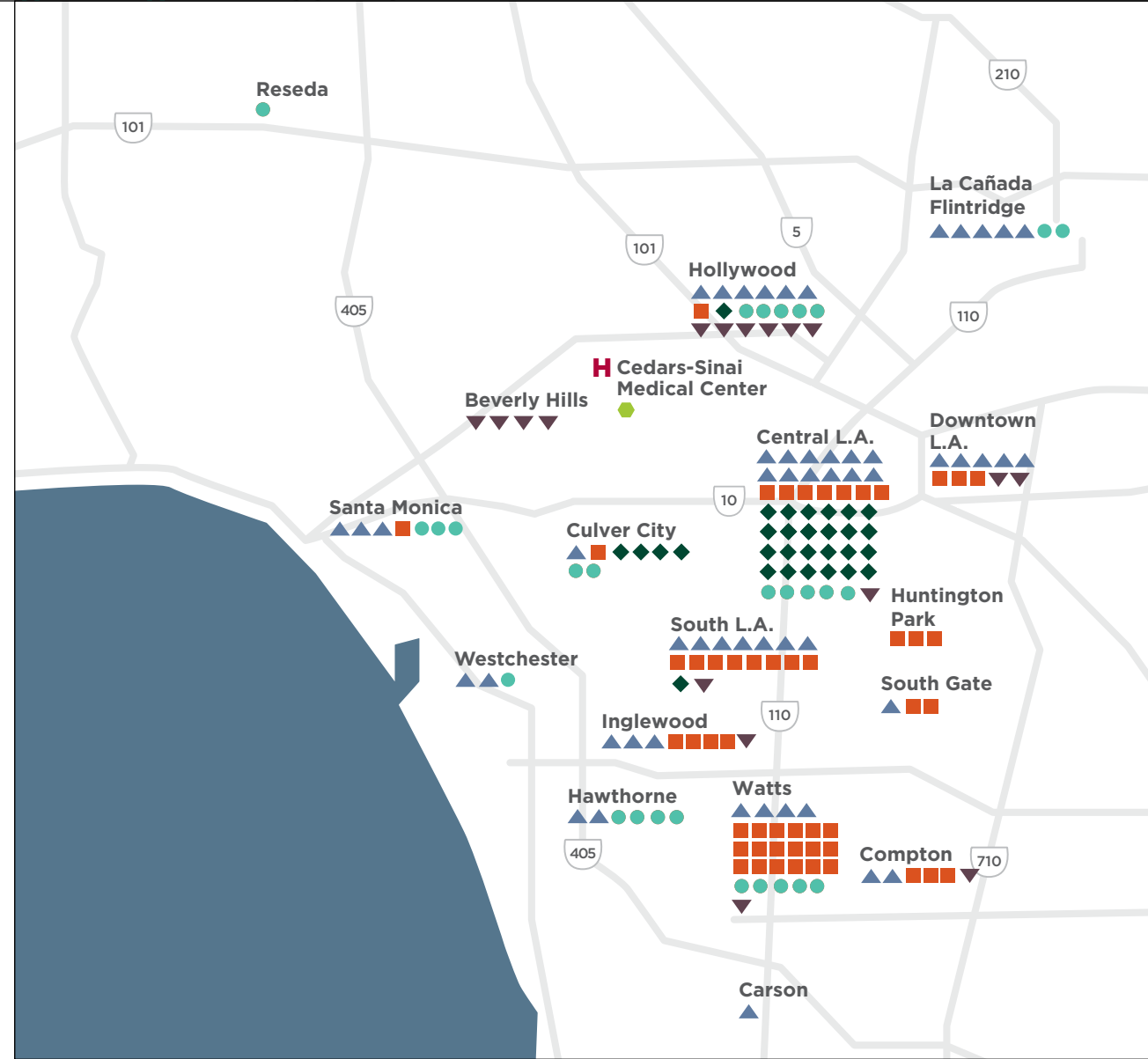
WESTCHESTER
Ambulatory Surgery
6801 Park Terrace Drive, Suite 300

Primary Care, Orthopedics, Sports Medicine
6801 Park Terrace Drive

WEST L.A.
Oncology
11818 Wilshire Blvd.

Primary Care
11645 Wilshire Blvd.

WHERE WE ARE COMMUNITY



WHERE WE ARE EDUCATION



- ▲ Community Clinic Initiative (50+ partners and grantees)
- Cedars-Sinai COACH for Kids® (51 sites)
- ◆ Cedars-Sinai Healthy Habits (30 sites)
- Cedars-Sinai Share and Care (28 sites)
- ▼ Cedars-Sinai Community Health and Education (17 sites)
- ⬢ Cedars-Sinai Youth Employment and Development (1 site)

Note: Site locations shown above are approximate.

- Cedars-Sinai Medical Center
- Cedars-Sinai Kerlan-Jobe Institute
- Children's Dental Center of Greater Los Angeles

- Eisner Pediatric & Family Medical Center
- The KHEIR Center
- Los Angeles Christian Health Centers
- Planned Parenthood Los Angeles

- Saban Community Clinic (2 locations)
- Venice Family Clinic

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Chair, Board of Directors

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Secretary, Board of Directors

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independent healthcare organization, is
committed to:

- Leadership and excellence in delivering quality healthcare services
- Expanding the horizons of medical knowledge through biomedical research
- Educating and training physicians and other healthcare professionals
- Striving to improve the health status of our community

Quality patient care is our priority. Providing excellent clinical and service quality, offering compassionate care, and supporting research and medical education are essential to our mission.

This mission is founded in the ethical and cultural precepts of the Judaic tradition, which inspires devotion to the art and science of healing, and to the care we give our patients and staff.

*Past Chair of the Board **Honorary Life Trustee ***Chief of Staff ****Deceased



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Los Angeles, California 90048

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