

CEDARS-SINAI
REPORT TO THE
COMMUNITY



CEDARS-SINAI[®]

OUR MISSION

Cedars-Sinai Health System, a nonprofit, 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.



For more than a century, Cedars-Sinai has been known for providing the highest quality medical care and treatment for complex conditions. That tradition continues today as truly amazing things are accomplished for our patients on a daily basis in our medical center, the flagship of Cedars-Sinai Health System.

As an organization with a longstanding commitment to meeting the community's changing needs for healthcare, and in response to increasing regional demand for Cedars-Sinai quality, we have been enhancing access to Cedars-Sinai care in a variety of ways.

Today, thousands of people receive care from Cedars-Sinai at locations other than our medical center campus. And that number will increase significantly as we continue to expand our affiliations and community partnerships throughout the region.

Over the past several years, we have expanded access through a number of affiliations with high-quality physician groups and other healthcare organizations that share our patient-centered values. This year, we also opened a satellite office in Culver City that offers primary care and urgent care, and acquired the nearby

Marina Del Rey Hospital. Future affiliations and satellite offices will include an even wider diversity of communities throughout the region.

We are increasing access to Cedars-Sinai in many other ways, especially for the most vulnerable populations.

Cedars-Sinai continues to provide hundreds of millions of dollars each year in unreimbursed care for people without any insurance and for those with Medi-Cal and Medicare — government programs that pay only a portion of the cost of caring for those patients.

This year, we expanded our community grant activities with the launch of a new Community Clinic Initiative: Strengthening L.A.'s Safety Net. Although the Affordable Care Act has reduced the number of uninsured in the nation, it also has increased the demands on the community clinics that are often the entryway for care for the most vulnerable. This initiative provides funding for capacity-building projects to ensure that these organizations can continue effectively carrying out their important role as we work together to meet the health needs of Los Angeles' underserved communities.

We are grateful to all those in our community whose support and partnership enable us to do all this and much more. Together, we are transforming healthcare in countless ways to benefit patients and strengthen communities.

VERA GUERIN
Chair, Board of Directors

THOMAS M. PRISELAC
President and CEO

Patient Care

Since its creation in 1902, Cedars-Sinai has evolved to meet the healthcare needs of one of the most diverse regions in the nation, continually setting new standards in quality and innovation. Today, the institution is widely known for its national leadership in transforming healthcare for the benefit of patients through established and pioneering treatments. It offers comprehensive care for every generation, from fragile preemies to seniors. Cedars-Sinai's 2,000 physicians, 2,800 nurses and thousands of other healthcare professionals collaborate to offer high-quality primary care as well as specialized care for complex and advanced diseases. These diverse caregivers are united by a commitment to providing the best care to every patient.

PATIENT CARE

HOPE FOR EXPECTANT IBD PATIENTS

Inflammatory bowel disease (IBD), the umbrella term for conditions causing severe inflammation of the digestive tract, can add significant risk of miscarriage, premature delivery or low birth weight. To treat expectant mothers' conditions while helping ensure safe pregnancies, Cedars-Sinai created a new multidisciplinary program, Pregnancy and Fertility in IBD. The program, along with new IBD multidisciplinary clinics, will provide highly coordinated care for patients with chronic illness who often are on immunosuppressive treatments. Other coordinated care programs for IBD patients cover nutrition and mental health as well as ileoanal anastomosis, a surgical option for some patients suffering from ulcerative colitis.

CONSUMERS CHOOSE CEDARS-SINAI

For the 19th straight year, Cedars-Sinai earned a Consumer Choice Award from the National Research Corporation. Based on household surveys, the honor acknowledges the highest quality of medical care across the nation. This year, Cedars-Sinai was the only hospital in Los Angeles County honored for best overall healthcare, staff and reputation. Cedars-Sinai is one of only 35 hospitals nationwide to have won or shared the award every year since the award's launch in 1996. More than 290,000 households nationwide were contacted for the survey, including more than 9,600 in Los Angeles County. Respondents rated their hospital preferences based on quality, image, reputation, physicians and nurses.

EXPANDING OUR GEOGRAPHIC FOOTPRINT

Cedars-Sinai is making it easier for more people to access coordinated, quality care with several new affiliations and expansions. Among them are: Marina Del Rey Hospital, a 145-bed community hospital, and its internal medicine practice, Access Medical Group; a Culver City location with full-service urgent care as well as primary care for children and adults; a gastroenterology practice in Santa Monica; and Valley Internal Medicine, which provides primary care for adolescents to seniors. Cedars-Sinai also will have a significant presence in the new mixed-use development Runway Playa Vista, with urgent, primary and specialty care offices set to open by the end of 2016.

SAFE DELIVERY

When a cesarean section occurs during a first pregnancy, it puts the woman at increased risk for complications in future pregnancies (such as repeat cesarean delivery). The Department of Obstetrics and Gynecology is committed to a substantial reduction of births by cesarean section. At Cedars-Sinai, the percentage of women who successfully deliver vaginally after having once had a cesarean is significantly higher than the national measure. For those cases in which a cesarean delivery is necessary, an obstetrics-gynecology task force is working to standardize methods for "gentle" or "natural" cesareans. The gentle approach emphasizes parental involvement, keeping mothers and infants together, and transferring the baby onto the mother's chest for skin-to-skin contact immediately after delivery.

TAKE NOTE

As part of OpenNotes, a national initiative to improve patient engagement by enabling real-time access to records, Cedars-Sinai has rolled out a program that lets patients view their doctor's progress notes via the secure My CS-Link™ portal. Approximately 30 Cedars-Sinai Medical Group, faculty and private practice physicians volunteered to participate in the pilot. Their patients can log on to My CS-Link to review each progress note after it is completed, although physicians will be able to hide specific notes if they wish. The program is one of many launched by Cedars-Sinai that incorporates and encourages patient feedback to help make care more convenient, efficient and effective.

SUPPORTIVE CARE MEDICINE

Misconceptions about palliative care are giving way to greater awareness of how patients with advanced, life-limiting — but not necessarily terminal — illnesses can benefit from a clinical team dedicated to alleviating suffering and improving quality of life. At Cedars-Sinai, palliative care has come of age with the integration of inpatient, outpatient and cancer center services into a single program, Supportive Care Medicine. The program tends to the comfort and wellbeing of patients in a variety of healthcare settings, from hospital to home. Supportive Care Medicine services include providing complex pain and symptom management for patients as well as emotional and spiritual support. The team also aids patients with the complex issues surrounding advance healthcare directives and end-of-life issues.

SHORTER STAYS FOR PREMATURE INFANTS

The average length of stay by premature babies in Cedars-Sinai's Neonatal Intensive Care Unit is now 17 days, down from 21.



Thanks to a range of medical advances, the time spent by premature babies in Cedars-Sinai's Neonatal Intensive Care Unit, part of the Maxine Dunitz Children's Health Center, has declined dramatically during the past three years. The average length of stay is now 17 days, down from 21. The reasons include rigorous coordination to meet each baby's complex health needs, personalized nutrition therapy to ensure crucial weight gain, nonsurgical procedures to heal heart defects and new medical protocols for mothers likely to deliver a premature infant.

PATIENT CARE

**INTERDISCIPLINARY,
INPATIENT HOSPICE**

Cedars-Sinai’s new inpatient hospice program ensures that patients experiencing acute symptoms at the end of life receive the best care possible. The institution has engaged a leading national hospice organization to collaborate in the delivery of care for these vulnerable patients. Care plans for enrolled patients will be managed closely every day by interdisciplinary Cedars-Sinai providers, including an attending hospice physician, other doctors who have been involved in the patient’s care and the hospice organization’s team. If a patient’s acute pain or symptoms are brought under control and the patient is clinically stable, the team will work to seamlessly transition the patient to another care setting outside the hospital with continued hospice care.

**ALZHEIMER’S
PREVENTION**

Cedars-Sinai has launched the Alzheimer’s Prevention Program to help identify patients at risk of developing the disorder and to reduce the impact on those already diagnosed. It represents a concerted effort by clinicians, researchers, patients, families, caregivers and community agencies to address the approaching “tsunami” of Alzheimer’s disease — with cases expected to triple nationally by 2050. The program seeks to identify patients in the early stages of the disease, when interventions and treatments can have the biggest impact, and to provide patients and families with comprehensive, long-term care and education. It also will serve as a hub for clinical trials of experimental Alzheimer’s drugs, including several being studied at Cedars-Sinai.

TOP PERFORMANCE

For the eighth consecutive year, Cedars-Sinai Medical Group ranked among the top-performing physician organizations in California. This “top performer” ranking comes from the Integrated Healthcare Association — a nonprofit, statewide, collaborative leadership group that promotes quality improvement, accountability and affordability for the benefit of California consumers. The organization ranks performance based on data on clinical quality, patient experience, advanced use of information technology and coordinated diabetes care. On multiple occasions, Cedars-Sinai Medical Group also has been awarded Elite status, the highest possible designation for quality care recognized by the California Association of Physician Groups.

FIRST WATCH

Cedars-Sinai proved crucial to the testing that led to Food and Drug Administration (FDA) approval of the WATCHMAN — a device for patients at risk of stroke from blood clots. Surgeons at the institution also were among the first to implant the device in patients after FDA approval. The WATCHMAN, which looks like a tiny umbrella, is inserted through a catheter into the groin and threaded up to the heart, where it seals off a pouch on the left side of the heart that is a major source of dangerous blood clots. The seal prevents clots from flowing to the brain and causing stroke. The procedure allows patients to return to their usual activities within a few days and is ideal for those for whom blood-thinning drugs would be risky or ineffective.

**ANEURYSM BY
A THREAD**

Each year, half a million people die from brain aneurysms — when a blood vessel bursts in the brain. Such ruptures are fatal about 40 percent of the time, and many survivors suffer permanent neurological deficits. Cedars-Sinai’s Neurovascular Center offers new technologies that could increase the survival rate. By threading a catheter into the aneurysm and then coiling in platinum wires to promote clotting, doctors can lessen the likelihood of another aneurysm. The procedure can be done inside the artery rather than surgically opening the skull or brain, thus reducing blood loss and speeding recovery.

‘MOST WIRED’

For the third consecutive year, Cedars-Sinai ranked among the “most wired” U.S. hospitals and health systems in a survey conducted by *Hospitals & Health Networks*, a publication of the American Hospital Association. Among the advances that helped earn the 2015 distinction were upgrades to My CS-Link™. Not only can patients now access this secure medical record system online 24/7, but they also can connect their wearable devices to the portal to share important biometrics with their clinical team. The institution also implemented a bidirectional interface between intravenous pumps and CS-Link, which will reduce the potential of medication errors. Cedars-Sinai is one of just 338 health systems nationally to receive the recognition.

**PRESCRIPTION
FOR IMPROVING
HEALTH**

Pharmacy Services at Cedars-Sinai has implemented an outpatient program to support patients with complex medical conditions. For instance, transplant and cancer patients have special medication needs that require an evaluation of the patient’s entire medication regimen to prevent contraindications and determine appropriate dosing. At least 50 percent of chemotherapy drugs in development are oral agents. These drugs are not generally well-studied in pediatric and geriatric populations and therefore require careful monitoring. A team-wide effort helps patients understand how to take their prescriptions, what to do if they miss a dose, how to manage side effects and how to dispose of medications when they are no longer needed — as well as following up to ensure adherence to the prescribed regimen.

Pharmacists play a pivotal role on the healthcare team, providing optimal management of medications and forming a “safety net” for patients.



*Clinical pharmacist
Stacey Cho, PharmD*

PATIENT CARE

ICU IN MOTION

Patients admitted to intensive care units often have limited or no mobility, which can lead to complications such as delirium, bedsores, and loss of muscle tone and endurance. To address this, a team at Cedars-Sinai has launched an ambitious pilot project to help return as much movement as possible to patients. The early mobility program employs verbal cues, light to moderate exercise, and assistance from loved ones to motivate patients and get them moving again.

NATIONAL LEADER IN HEART TRANSPLANTS

The Cedars-Sinai Heart Institute completed 120 adult heart transplants and two adult heart-lung transplants in 2014, setting a new national record for the most adult heart transplants performed in a single year. The previous year, Cedars-Sinai surgeons performed 117 adult heart transplants and two adult heart-lung transplants. Until then, the most heart transplants performed at a single medical center in one year was 98, a record set in 2005. Statistics are compiled by the nonprofit United Network for Organ Sharing, which manages the U.S. transplant system and collects data on every transplant performed in the nation.

SPORTS MEDICINE ADDS TO ROSTER

Two of the nation's most prominent orthopedic and sports medicine physician groups — Kerlan-Jobe Orthopaedic Clinic and Santa Monica Orthopaedic & Sports Medicine Group — are now formally affiliated with Cedars-Sinai. The affiliation includes the two groups' clinics, imaging and surgery centers, and research and fellowship training programs. These collaborations augment the renowned Cedars-Sinai Orthopaedic Center roster, enabling expanded clinical trials and research as well as collaborative consultations on complex cases. Initiatives facilitated by these partnerships include stem cell therapies and other molecular and cellular-based experimental treatments for sports injuries, and new approaches that minimize surgery whenever possible.

POST-CANCER SUPPORT

Even after beating cancer, survivors face significant hurdles in returning their lives to normal. Post-cancer challenges can include chemotherapy-related cognitive impairment, fatigue and depression — conditions that can linger for weeks or months after treatment. Cedars-Sinai provides patients with post-cancer rehabilitation services to help them overcome these issues. Participants in the 12-week survivorship program learn meditation techniques to deal with their fears, receive exercise instruction — as the lack of aerobic workouts may increase the risk of recurrence — and get help in building healthy eating habits. The classes enroll about six patients apiece, allowing for a close-knit group with personalized counseling and training for each cancer survivor.

FROM YOUR WRIST TO YOUR MEDICAL RECORD

Now, Cedars-Sinai patients with My CS-Link™ accounts can upload data from their personal health devices so the information syncs with their medical record. The Apple HealthKit integration works with Apple Watch, iPhone, iPod touch, and Withings scales and blood pressure monitors as well as Fitbit and Nike+ Fuel products. The launch was the largest to date for Apple, with more than 80,000 Cedars-Sinai patients gaining the ability to share their steps and other data with care teams.

OPTIMAL OPERATIONS

To enhance the quality of care it provides and to help patients prepare in advance for both surgery and recovery at home, the Cedars-Sinai Orthopaedic Center undertook an internal review of its entire operative process. Orthopaedic Center nurses worked with nurses in the operating room and post-anesthesia care unit, observed physicians in surgery and followed patients from their initial consultation through recuperation from surgery. The initiative resulted in an 11 percent decrease in patient questions. Orthopaedic Center physicians perform an average of 50 procedures weekly, and most patients return home the same day.

ENHANCED CARE FOR MOTHERS' HEARTS

In women — especially young women — pregnancy can be the first real stress test for the heart. To screen women with adverse pregnancy outcomes for long-term risk of cardiovascular disease, the Barbra Streisand Women's Heart Center at the Cedars-Sinai Heart Institute has launched the Postpartum Heart Health Program. Using a relatively new concept in women's health, the program aims to identify individuals with a high trajectory of risk and to intervene quickly. It aims to become a tertiary referral center for these women to help them reduce their long-term risk of heart disease. Adverse pregnancy outcomes include gestational diabetes and hypertension, preeclampsia, postpartum hypertension and spontaneous preterm delivery.

“I was so glad to come here and to know I’d be with the best specialists.”

—Teresa Cuevas’ pregnancy complication at age 20 may have led to her cardiac arrest at age 36. She turned to Janet Wei, MD, of the Barbra Streisand Women’s Heart Center at the Cedars-Sinai Heart Institute, to monitor her heart health throughout her most recent pregnancy.



PATIENT CARE

TRUST YOUR GUT

Millions of people afflicted with irritable bowel syndrome (IBS) now can be diagnosed quickly and accurately with two simple blood tests developed by a Cedars-Sinai gastroenterologist. Toxins produced by bacteria, such as salmonella, can severely harm the digestive system by damaging nerves critical to healthy gut function. The new blood tests — marketed under the name IBSchek — identify the presence and amount of specific antibodies that react to the toxins. IBS is the most common gastroenterological disorder in the U.S., affecting nearly 40 million people. An estimated 10 percent of the world's population suffers from the condition.

ADVOCATES FOR QUALITY CARE

Cedars-Sinai's Physician Advocate Program is defining a new frontier in patient care. Physician advocates help enhance quality, efficiency and patient satisfaction by acting as eyes and ears for attending medical staff during daily, multidisciplinary progression-of-care rounds. Preliminary results are encouraging. Data shows that the average length of stay is shortened by almost two days in units in which physician advocates participate in multidisciplinary rounds, and these reductions showed no statistically significant increase in the readmission rate. The growing program now has five physician advocates.

ALS CENTER OF EXCELLENCE

The ALS Program at Cedars-Sinai has become the first in Southern California to be named an ALS Association Certified Treatment Center of Excellence. The distinction recognizes the quality of Cedars-Sinai's research and treatment of the progressive neurological disease amyotrophic lateral sclerosis (ALS). To earn certification, Cedars-Sinai met rigorous standards established by the ALS Association for research initiatives and a comprehensive and collaborative approach to patient care and services. Cedars-Sinai's program is exploring a variety of ways to treat ALS, including stem cell and gene therapies — all aimed at developing effective, personalized interventions.

PEA POD FOR PREEMIES

A new device called the Pea Pod — which is used to measure the body composition of infants — made its debut in the Maxine Dunitz Children's Health Center. The baby is placed inside the heated, swaddle-like unit for approximately three minutes. Using an air-displacement method, the machine senses changes in pressure and can determine the percentage of body weight that is fat and the percentage that is lean body mass. With this information, caregivers can personalize the baby's nutritional supplements to help ensure appropriate weight gain.

CANCER CARE IN MORE COMMUNITIES

The Angeles Clinic and Research Institute in Santa Monica has followed Tower Hematology Oncology Medical Group in joining the Cedars-Sinai Samuel Oschin Comprehensive Cancer Institute. These affiliations strengthen Cedars-Sinai's oncology partnerships and expand the ability to provide clinical care to cancer patients in the Los Angeles area and beyond.

STRONGER PHYSICIAN-PATIENT RELATIONSHIPS

A new initiative is improving the value of care by strengthening patient-doctor bonds and bringing greater efficiency to the delivery of clinical services. The Cedars-Sinai Center for Outcomes Research and Education seeks to transform the ways patients, doctors and hospitals communicate through innovations such as wearable biosensors that track patients' vital signs and activities at home, then instantly transmit that data to electronic medical records. Researchers also are developing computer programs that will allow patients to complete their medical histories online — saving time while providing up-to-date information for doctors. The team is exploring social media as a clinical communication tool as well.

AUTOMATING IV INFUSIONS

Working closely with their pharmacy colleagues, Cedars-Sinai nurses in 42 adult patient units successfully switched to an automated system for administering IV infusions. The institution was among the first in the nation to reduce the potential for programming errors at the bedside by linking smart IV pumps with the electronic health record. Information from Cedars-Sinai's medication administration record is transferred from CS-Link™ to IV pumps so nurses no longer have to punch in numbers such as the correct dose, concentration and infusion rate. The transition involved training nurses in new, standardized infusion practices. They will continue to learn new workflows as the automated system is expanded to include more medications and additional medical units.

Cedars-Sinai was among the first hospitals in the nation to integrate smart IV pumps with the electronic health record.



Mark Quevedo, RN, a nurse on 7 Northwest, works in a unit equipped with the new IV pumps.

PATIENT CARE

A STRIKE AGAINST THE SILENT KILLER

The Cedars-Sinai Hypertension Center has been certified as a Comprehensive Hypertension Center by the American Society of Hypertension, the largest organization of clinical hypertension specialists and researchers in the United States. Cedars-Sinai's center is one of only a dozen in the nation to earn the designation — and the only one in California. The certification recognizes Cedars-Sinai's advanced, multidisciplinary care for patients who have difficult-to-treat hypertension and related conditions. Hypertension, or high blood pressure, is called a silent killer because patients often don't experience symptoms. The condition contributes to nearly 1,000 deaths each day, according to the U.S. Centers for Disease Control and Prevention.

COMFORT CARTS

Little things often make all the difference in patient care and, in 2015, Cedars-Sinai volunteers have been on a roll, bringing lots of goodies to patients via two new "comfort carts." The carts offer items to enhance patients' experience and satisfaction, including eye masks, earplugs and crossword puzzles. Cedars-Sinai volunteers travel from floor to floor and room to room, greeting patients and offering them wares from the cart. The items, handed out daily by participants in the Teen Volunteer Program and the Transforming Care at the Bedside volunteer program, are free for patients. The carts not only bring little amenities to hundreds of patients each day, but they also provide a vehicle for social interaction with patients — which the volunteers enjoy as well.

BREAST CENTER EARNS NATIONAL ACCREDITATION

The Saul and Joyce Brandman Breast Center – A Project of Women's Guild, in the Samuel Oschin Comprehensive Cancer Institute, has received accreditation from the National Accreditation Program for Breast Centers. To be recognized, the breast center had to meet numerous standards, including offering genetic counseling when applicable, instituting mechanisms to inform patients of available clinical trials and connecting patients with nurse navigators. This represents the breast center's first accreditation, and the recognition will aid the cancer institute in achieving its academic and clinical goals. The American College of Surgeons administers the accreditation program.

MENDING A HOLE IN THE HEART

A new technique for repairing patent ductus arteriosus (PDA) — the most common cardiac birth defect in newborns, often called a "hole in the heart" — has been used successfully in six premature infants, sparing them open-heart surgery. A team in the Cedars-Sinai Heart Institute's Paul and Vera Guerin Family Congenital Heart Program developed the minimally invasive procedure. PDA is a condition in which the vessel that routes blood around the baby's lungs prior to birth fails to close soon after delivery. This leads to abnormal blood flow that causes symptoms ranging from fast breathing and difficulty in feeding to brain hemorrhage and even death in premature infants. The team's results were published in *Catheterization and Cardiovascular Interventions*.

WORLDWIDE CONSULTATIONS

The Cedars-Sinai Department of Neurosurgery now offers teleconsultation services for patients around the world. Patients need only an Internet connection and a sound-enabled webcam or smartphone to connect with Cedars-Sinai's specialists and benefit from their expertise. Consultations can be for a routine follow-up appointment, post-operative appointment or review of imaging tests. Only imaging reviews require extra steps, which include the patient's physician completing a medical history form available on the Cedars-Sinai website that must be sent to the Department of Neurosurgery along with a digital copy of the imaging study. The review is usually completed and returned within two weeks.

AMERICA'S BEST HOSPITALS

Cedars-Sinai was nationally ranked in 12 specialties in *U.S. News & World Report's* "Best Hospitals 2015-16." The 12 Cedars-Sinai areas ranked were: cancer; cardiology and heart surgery; diabetes and endocrinology; ear, nose and throat; gastroenterology and GI surgery; geriatrics; gynecology; nephrology; neurology and neurosurgery; orthopedics; pulmonology; and urology. Cedars-Sinai also ranked as the No. 4 hospital in California and as No. 1 in the Los Angeles metro area.

TRANSPORTATION LINK

A new service at Cedars-Sinai is significantly improving how patients are transported throughout the medical center, helping decrease delays and wait times. The Central Transportation Services team now handles all patient and nonpatient transports. The service replaces the former system, in which support personnel were pulled away from assigned duties to transport patients, and enables healthcare providers to spend more time on direct patient care. Using customized transport software in CS-Link™, the new service operates 24/7. When a patient needs to be admitted, discharged or taken to another area of the medical center for diagnostics or testing, a request for transport is placed via CS-Link.

Teams of transporters equipped with electronic devices work throughout the medical center.



Domonique Jackson and Walter Munoz are among the transporters who work throughout the hospital.

Research

Discovery is central to Cedars-Sinai's mission. The institution's laboratories and clinics generate ideas, therapies, devices and systems that contribute to biomedical progress around the world. More than 1,500 research projects currently underway explore the genetic underpinnings of disease, exploit the potential of stem cells, leverage nanotechnology, parse big data, and assess how gender and metabolism impact health. Cedars-Sinai's investigators push the frontiers of biomedicine with studies in cardiac care, cancer, digestive health, the neurosciences, women's health and more. Cedars-Sinai has earned its position as a research leader through an ever-expanding effort to promote health, reduce suffering and improve human life.

**THE PATHWAY
LESS STUDIED**

A scientist at Cedars-Sinai is one of three senior authors of an in-depth investigation into the genetics of inflammatory bowel disease (IBD) in African-Americans — the first study of its kind, as most research on IBD has been conducted on whites and Asians. IBD also has been historically underdiagnosed among this population, although more and more cases are now reported every year. Evaluating more than 1,500 African-American patients, the study found that they shared several genetic risk factors for IBD with whites and Asians. Analyses performed at Cedars-Sinai identified cellular pathways that result in IBD development unique to African-Americans. This new knowledge could eventually lead to more personalized approaches for managing and preventing the disorder.

**BRAIN VS. SPINAL
CORD IN ALS**

A new study at the Cedars-Sinai Board of Governors Regenerative Medicine Institute shows that the key to blocking progression of amyotrophic lateral sclerosis (ALS) may rest in the brain. The findings, published in *The Journal of Neuroscience*, could shift researchers' attention from the spinal cord to the brain's motor cortex as the disease's initial point of dysfunction. The study elucidates the progression of ALS in animals that have an inherited form of the disease. ALS causes weakness and gradual paralysis of muscles throughout the body, and although the timing and sequence of progression is unpredictable, it often begins in the arms or legs. No cure has been discovered.

**VISIONARY
STEM CELLS**

Scientists at Cedars-Sinai have found that an injection of stem cells into the eye could potentially slow or reverse effects of early-stage, age-related macular degeneration. The stem cell injection resulted in 130 days of preserved vision in laboratory animals — which roughly equates to 16 years in humans. Next steps include testing the treatment's efficacy and safety in preclinical studies before moving on to clinical trials with humans. Age-related macular degeneration affects 15 million Americans. It occurs when the small central portion of the retina, known as the macula, deteriorates. Currently, no treatment exists for slowing the progression of the disease, which is the leading cause of vision loss in people over 65.

**TRANSFUSIONS:
NOW IT'S PERSONAL**

The Cedars-Sinai Transfusion Medicine Division is one of only a handful in the nation that performs molecular blood typing. In addition to the classic four blood types (O, A, B and AB) and Rhesus (Rh) factor, antigens play a crucial role in the success of blood transfusions. Cedars-Sinai investigators can determine the presence or absence of up to 32 antigens using a single blood test and genetic analysis. Studies at Cedars-Sinai demonstrated that the tests can enable physicians to provide safer transfusions through an extended matching process. This reduces the risk of antibody formation, which can greatly complicate future transfusion therapy, increase cost and delay availability of compatible blood. To date, Cedars-Sinai has used molecular typing with 15,000 donors.

**EXHALANT LUNG
RESEARCH**

A study by Women's Guild Lung Institute investigators is testing the investigational use of a drug called bardozone methyl in patients with pulmonary arterial hypertension (PAH). The clinical trial is testing the safety and effectiveness of the drug by evaluating how it influences exercise ability in PAH patients. Pulmonary hypertension is a condition in which the blood pressure in the arteries of the lungs is unusually high.

**DUAL-PURPOSE
SCANNER**

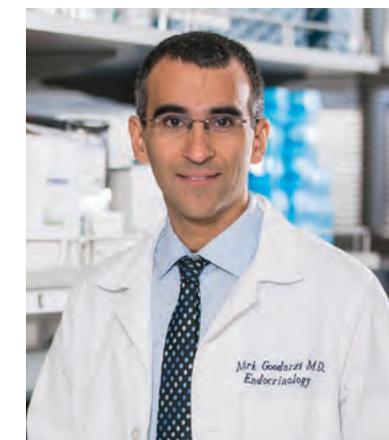
The Cedars-Sinai Biomedical Imaging Research Institute has added to its arsenal a leading-edge hybrid scanner that can simultaneously acquire magnetic resonance and positron emission tomography data across the whole body. The device combines soft-tissue contrast and blood-vessel physiology with metabolic imaging, enabling users to obtain a comprehensive diagnostic picture in one scan — increasing productivity while reducing cost. In addition to the scanner's importance to research innovation, it also will be made available for clinical use.

**GENETIC
PROTECTION
FROM DIABETES**

An international team of scientists led by a Cedars-Sinai investigator identified a new genetic mutation that appears to offer protection from Type 2 diabetes. The finding could lead to novel drug therapies for treating the nearly 26 million Type 2 diabetics in the United States who rely on insulin and oral medication to manage the disease. Comparing the genes of 81,000 people without the disease with the genetic information of 16,000 diabetics, the researchers found that a mutation in one particular gene — GLP1R — appeared to decrease the risk of developing Type 2 diabetes by 14 percent. Investigators also are trying to determine whether the unique genetic mutation affected rates of obesity — a major risk factor for developing diabetes.

“We have a wonderful opportunity to personalize the treatment and prevention of this chronic disease. Identification of genes that influence the risk of diabetes is going to open new frontiers in diabetes drug development.”

*—Mark O. Goodarzi, MD, PhD,
professor and director,
Division of Endocrinology,
Diabetes and Metabolism*



HOPE FOR ALZHEIMER'S PATIENTS

Cedars-Sinai researchers have successfully tested two new methods for preserving cognition in laboratory mice that exhibit features of Alzheimer's disease. One process employs white blood cells derived from bone marrow to preserve neuron communication while the other employs a multiple sclerosis drug to control brain immune response. In both approaches, immune cells were found to travel in greater numbers through the blood and into the brain. The brain's own immune cells are critical for healthy function but, as Alzheimer's progresses, they become defective. The investigators discovered that immune cells infiltrating the brain from the blood effectively resisted abnormalities associated with the condition. Each method represents an encouraging step toward human trials.

BIOLOGICAL PACEMAKERS

Cardiologists at the Cedars-Sinai Heart Institute have pioneered a gene-delivery procedure that converts unspecialized heart cells into "biological pacemaker" cells. The minimally invasive process could prove especially valuable to newborn heart patients, who currently are served by cumbersome external devices. It even could help those still in the womb. Published in *Science Translational Medicine*, the research followed laboratory pigs suffering complete heart blockage that were injected with the TBX18 gene. The animals receiving it had significantly faster heartbeats than those that did not. The stronger heartbeat persisted for the duration of the 14-day study. Longer follow-up preclinical studies are underway.

STEM CELLS REBORN

Using DNA derived from stored blood samples, Cedars-Sinai scientists have developed a novel method for recreating brain and intestinal stem cells from long-dead patients to study the potential causes of debilitating illnesses such as inflammatory bowel disease. The research, published in *Stem Cells Translational Medicine*, could yield new therapies for those who suffer from aggressive motor-neuron and gut-related conditions that proved fatal to the deceased patients, who donated their blood samples long ago. This approach allows investigators to connect the dots between a deceased patient's symptoms, genetic information contained in DNA and the behavior of stem cells in the laboratory. This, in turn, enables investigators to study biological mechanisms underlying diseases and potentially design new therapies.

MORE EFFICIENT CLINICAL TRIALS

The National Cancer Institute awarded \$1.7 million to a Cedars-Sinai biostatistician for a study aimed at making cancer clinical trials safer and more effective. The project at the Biostatistics and Bioinformatics Research Center in the Samuel Oschin Comprehensive Cancer Institute focuses on Phase I and II clinical trials that simultaneously test two or more chemotherapy and/or biologic agents — an increasingly common therapy for cancer patients. The goal is to better identify dose combinations that are safe, tolerable and effective. The process is complicated, both statistically and clinically, as each agent must be evaluated on its own and in combination with others.

A POTENTIAL TREATMENT FOR 'DIABESITY'

"Diabesity" occurs when obesity and diabetes — each a serious disorder — co-occur in the same person. Cedars-Sinai investigators are testing a new device that may help treat these increasingly prevalent disorders. The device is a flexible, tube-shaped liner surgically inserted into the duodenum, the first part of the small intestine. Once in place, it forms a barrier between the intestinal wall and food, changing how the body responds to eating by altering hormone release. These changes could potentially promote weight loss by decreasing appetite. The device also might reduce Type 2 diabetes — the most common type — by improving the ability to control blood sugar. Unlike traditional operations, the placement requires no incision and the procedure is reversible.

NEW BIOARTIFICIAL LIVER

Acute liver failure is often a fatal diagnosis, but that might change with a novel, human-cell-based, artificial liver being tested at Cedars-Sinai. The external ELAD bioartificial system is designed to perform the critical functions of a normal liver, including protein synthesis and blood processing. Blood is drawn through a central venous line to be filtered and treated by the system before being returned to the patient. The process could potentially sustain patients until their own livers self-repair. Cedars-Sinai was one of 49 sites selected throughout the United States, Europe and Australia to test the system. The Cedars-Sinai research focuses on patients with liver disease caused by acute alcoholic hepatitis — a group with few therapeutic options.

ADVERSE PREGNANCY OUTCOMES STUDY

Pregnancies resulting from fertility treatments are at increased risk for complications, including low birth weight, birth defects and infant mortality. A study led by two physician-scientists in the Cedars-Sinai Department of Obstetrics and Gynecology found that the risk for adverse pregnancy outcomes (including cesarean delivery and retained placenta) in women age 45 and up who conceived with assisted reproductive technologies was higher than with older women who conceived naturally. The study is funded by a \$3.37 million grant from the National Institutes of Health.

"This study also will shed light on how normal pregnancies develop in the womb and how the intrauterine environment may affect the overall health of the infant, child and adult — something termed 'fetal origins of adult diseases.'"

—Margareta D. Pisarska, MD, director, Fertility and Reproductive Medicine Center and Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology



RESEARCH

GENE EDITING BAY

Cedars-Sinai Board of Governors Regenerative Medicine Institute investigators developed a technique that enhances gene editing through low-dose irradiation. According to results reported in *Stem Cells Translational Medicine*, the method is 10 times more effective than current techniques, enabling scientists to correct disease-causing mutations and, theoretically, cure the disease in a petri dish. The technique enables Cedars-Sinai scientists to more efficiently insert reporter genes that glow when a stem cell transforms into a specialized cell. The technology also allows scientists to model human disease by creating mutations in normal cells. The irradiation method could unlock the mysteries of diseases such as spinal muscular atrophy, muscular dystrophy and Huntington's disease.

A BETTER HPV VACCINE

Cedars-Sinai was part of a milestone study on a new human papilloma virus vaccine. 9-Valent can potentially prevent 80 percent of cervical cancers in the United States — if given to all 11- or 12-year-old children before exposure to the virus. This represents a more than 11 percent increase in protection compared to current vaccines. The new vaccine also could protect against approximately 19,000 other cancers, including anal, oropharyngeal (throat, tongue and tonsils) and penile cancers. These findings come from a seven-center study published in the *Journal of the National Cancer Institute*. Cedars-Sinai conducted the research in partnership with the U.S. Centers for Disease Control and Prevention.

RENEWABLE ENERGY

Cedars-Sinai's new Metabolism and Mitochondrial Research Core provides comprehensive tools and services to analyze how cells generate energy. Mitochondria, which produce energy for cells through cellular respiration, are integral to understanding a wide variety of disorders, including cancer, heart disease, skeletal disorders, Alzheimer's disease, retinal disorders, bowel disease, obesity and diabetes. The core's array of tools includes two instruments, one that measures the rates of oxygen consumption and extracellular acidification in cells and mitochondria, and a microscope with 3-D deconvolution and quantitative image analysis capabilities.

VIRTUAL BIOPSIES

Cedars-Sinai biomedical investigators have invented a tiny drug-delivery system that can identify cancer cell types in the brain through "virtual biopsies" and then attack the molecular structure of the disease. If research results obtained with mice are borne out in human studies, the system could be used to deliver nanoscale drugs that distinguish and fight tumor cells in the brain without requiring surgery. The nanodrug is about 20 to 30 nanometers in size — a fraction of a human hair's diameter — and can transport a variety of chemical and biological modules. The research is supported by the National Cancer Institute.

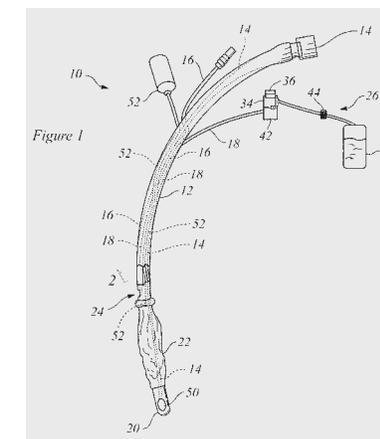
NEUROLINCS

Investigators at the Cedars-Sinai Board of Governors Regenerative Medicine Institute have received funding from the National Institutes of Health to more comprehensively study motor neuron disorders. The grant is part of the Library of Integrated Network-based Cellular Signatures (LINCS) program, which is creating databases of disease "signatures" by generating and analyzing thousands of data points. Cedars-Sinai is a member of NeuroLINCS, the segment of the program studying motor neuron disorders such as amyotrophic lateral sclerosis (ALS) and spinal muscular atrophy. The Cedars-Sinai institute will provide stem cells for the entire consortium and will conduct protein analysis for all NeuroLINCS collaborators.

STUDIES TARGET OVARIAN CANCER

A Cedars-Sinai scientist is leading two groundbreaking studies of strategies to attack ovarian cancer. The first demonstrated that two subtypes of ovarian epithelial cancer may respond to treatment with a novel therapeutic agent known as ADI-PEG 20. The research has immediate practical implications because it identifies a subset of patients as candidates for treatment. The second study found that the metabolic enzyme succinate dehydrogenase could function as a tumor suppressor in ovarian cancer. By analyzing the enzyme in ovarian cancer cell lines in mouse models, the research team found a metabolic weak point that could be exploited for therapeutic purposes.

In FY 2015, the U.S. Patent and Trademark Office issued 14 new patents for technology at Cedars-Sinai. Eighty-three new inventions were disclosed to the Technology Transfer Office, and 11 new license and option agreements were signed to further develop discoveries.



INTELLECTUAL PROPERTY, INTERNATIONAL PARTNERSHIPS

Cedars-Sinai's Technology Transfer Office plays a key role in advancing medical innovations by protecting and commercializing the institution's intellectual property assets. It manages a portfolio of more than 300 technologies — including potential new diagnostics and treatments for cancer, heart disease and inflammatory bowel disease. Royalty income totaled \$11 million in FY 2015. These funds are reinvested at Cedars-Sinai to generate a new cycle of discoveries for the technology transfer pipeline. The office maintains international partnerships with leading hospitals and research institutes in Asia, Europe and South America. This network enhances Cedars-Sinai's ability to bring innovative medical solutions to patients around the world.

PREGNANCY PRIORITIES

Childbirth is the No. 1 cause of hospital admission in the United States, yet methods of evaluating the childbirth experience from the mother's standpoint remain largely unexplored. To address the issue, a Cedars-Sinai physician-investigator has garnered a two-year grant from the Patient-Centered Outcomes Research Institute to study expressed healthcare priorities of pregnant women. The project joins providers of pregnancy and childbirth services together with recently pregnant women, advocacy groups, public health leaders and other community partners to organize focus groups. With the aid of these groups and a follow-up national survey of different communities, the study seeks to produce a framework that hospitals can use to determine patient satisfaction — and that payers can use to determine quality and value.

A NEW TYPE OF BREATH TEST

Not all patients experience hoped-for weight loss with bariatric surgery, and a methane-producing microbe in the gastrointestinal tract may be to blame. Cedars-Sinai investigators examined 156 obese adults after surgery, giving them breath tests to measure gases produced by gut microbes. Those with higher concentrations of both methane and hydrogen also had the lowest percentage of weight loss and lowest reduction in body mass index. This points to the microorganism *Methanobrevibacter smithii* — the gut's biggest methane producer — as the culprit. The ability to identify patients with this pattern of methane production could help elucidate dietary interventions to aid weight loss.

ETS FACTOR

Scientists at the Cedars-Sinai Board of Governors Regenerative Medicine Institute have identified the E26 transformation-specific (ETS) family of genes as an underlying cause of malignancy growth in a wide spectrum of high-grade brain tumors known as gliomas. They modeled these advanced-stage brain tumors from resident stem cells using a pioneering method that can create up to five distinct tumor models within 45 minutes. Next steps involve testing the function of each individual ETS factor to determine its specific role in tumor progression and recurrence after treatment. Gliomas are difficult to treat and have a very low survival rate.

NEW ALGORITHMS TO DIAGNOSE HEART DISEASE

Cedars-Sinai investigators are developing a computerized system for the application of cardiac imaging to detect coronary heart disease. The study combines the expertise of cardiologists and computer scientists to achieve a multifaceted understanding of medical image analysis, data mining, nuclear cardiology, imaging instrumentation, clinical cardiology and clinical trial design. The objective is to integrate a variety of data from images produced by the latest generation of nuclear cardiology scanners, combined with a patient's clinical data. Advanced data-mining algorithms then will calculate the probability of disease and cardiac risk. If successful, this would constitute a tremendous advance in diagnostic techniques for heart disease.

BARBERSHOP HYPERTENSION STUDY

Uncontrolled hypertension is one of the biggest health problems facing African-Americans. Now, thanks to a Cedars-Sinai investigator, barbershops throughout Southern California offer medical help in addition to a trim and a shave. The research study enrolled 500 African-American men with uncontrolled high blood pressure who have been longtime customers at some 30 Los Angeles-area barbershops. Vital to the interventions' success is the barbers' role as agents of change and their shops' status as community hubs. Dubbed "Barbershop L.A.," the project also is testing the feasibility of exporting this model to African-American communities around the country.

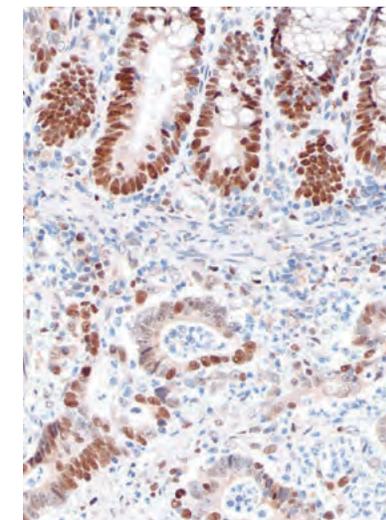
CORNEAL STEM CELL BANK

Scientists at the Cedars-Sinai Board of Governors Regenerative Medicine Institute have devised a novel way to generate transplantable corneal stem cells. The technique could eventually give sight to people suffering from corneal blindness. Investigators used human corneal cells to generate pluripotent stem cells that can become virtually any body cell. Then they differentiated these stem cells back to corneal cells. Published in *Stem Cells Translational Medicine*, this research marks a crucial first step toward creating a bank of corneal stem cells that can be thawed and expanded as needed for transplantation. Now Cedars-Sinai is working to optimize the process with National Institutes of Health support. Corneal blindness affects more than 3 million individuals worldwide.

NEXT-GENERATION SEQUENCING

In early 2015, Cedars-Sinai approved an internal project grant to foster personalized approaches to cancer treatment, including next-generation sequencing — a molecular analysis of a patient's cancer cells. The analysis can reveal which treatment options might be the most powerful for a particular patient. Using a cancerous tissue sample derived from a patient, pathologists can search for more than 2,800 cancer-related mutations in more than 50 cancer genes. Results from next-generation sequencing can disclose a cancer's genetic fingerprint and the driving mutations behind the disease, helping oncologists and patients make informed, tailored treatment decisions.

Using a cancerous tissue sample from a patient, pathologists can search for more than 2,800 cancer-related mutations in more than 50 cancer genes.



ONE SIZE MAY NOT FIT ALL

Male and female brains differ in how they respond to high-fat diets, according to research at the Cedars-Sinai Diabetes and Obesity Research Institute. Male laboratory mice exposed to the same high-fat diet as females developed brain inflammation and heart disease, while the females did not. This research suggests that one size may not fit all when it comes to nutritional guidance aimed at preventing patients from becoming dangerously overweight. An occasional high-fat meal may be fine for women, while men at risk for obesity will need to avoid such meals. The National Institutes of Health funded the study, and its findings were published in *Cell Reports*.

CONTRADICTORY MECHANISM

Nearly 8 million American women suffer from inflammation-associated bladder function impairment. Cedars-Sinai investigators may have found a remedy in anakinra, a drug for rheumatoid arthritis, according to a study published in *The Journal of Biological Chemistry*. The research focused on a paradox of bladder inflammation: Cells in the bladder muscle of affected individuals both multiply and die at abnormally high rates. Using mouse models, the researchers identified the mechanism underlying these contradictory occurrences. Further tests revealed that anakinra slowed cell growth and reduced inflammation without significantly accelerating cell death in mouse bladder muscles. Next steps include exploring a Phase II clinical study.

DISC DEGENERATION DIAGNOSTICS

An interdisciplinary research team at Cedars-Sinai received a grant from the National Institutes of Health to develop a new imaging technique for identifying biomarkers that indicate whether patients have intervertebral disc degeneration, a painful back condition. As reported in *Magnetic Resonance in Medicine*, employing this method to identify the exact disc from which the pain originates could save patients from painful and invasive diagnostic procedures, such as injections of a contrast agent or dye into their spinal discs. Cedars-Sinai scientists aim to use the imaging technique to generate stem cell-based therapeutics for helping patients overcome these debilitating back conditions.

CLINICAL STUDY MATCHMAKER

Research for Her™, Cedars-Sinai's groundbreaking online registry matching women with research studies and clinical trials, enrolls participants 27 percent faster than paper-based registries, according to new research published in *Gynecologic Oncology*. A total of 322 women enrolled in Research for Her over a 14-month period — a more than four-fold increase over the previously used paper-based registry. Of these 322 women, 263 were matched to at least one clinical study and, of those, 39 eligible individuals went on to enroll in a study. Created in 2013, Research for Her is open to all women over age 18 with or without a history of cancer. It soon will expand to enroll men in available trials and studies.

SOCIAL MEDIA MEDICINE

Cedars-Sinai is harnessing social media as a tool for medical research. A study at the Cedars-Sinai Center for Outcomes Research and Education will analyze Twitter posts to estimate how individuals' physical and mental health impact their quality of life. Investigators will tweet an announcement, to which Twitter users can respond by filling out a questionnaire about their physical and mental health. Researchers will then analyze tweets in partnership with computer scientists at UCLA with the goal of creating a computer model that scores tweets and produces results comparable to those of the questionnaires. This innovation could help investigators answer important clinical questions without having to bring patients into the laboratory.

TOX AND IMMUNITY

Cedars-Sinai scientists have discovered that thymocyte selection-associated high-mobility group box protein (TOX) plays a critical role in how bone marrow generates precursors for certain types of immune cells. The project at the Research Division of Immunology was based on genetically modified mouse models, one of which was created at Cedars-Sinai. It builds on previous pioneering studies conducted by the division on TOX and its role in immunity. The new study, published in *Nature Immunology*, focused on innate lymphoid cells (ILC), building blocks of the innate immune system. The investigators found that TOX was required for development of bone marrow progenitor cells that give rise to ILC subtypes.

GENETIC ROLE IN ALS

Genetics may play a larger role in amyotrophic lateral sclerosis (ALS) than previously thought, potentially accounting for more than one-third of all cases. Cedars-Sinai investigators identified several new or rare ALS-associated mutations and found that patients with defects in multiple ALS-associated genes experience onset about 10 years earlier than patients with single-gene mutations. This discovery anticipates a personalized approach that could potentially deliver gene-specific therapies to correct ALS defects. The Cedars-Sinai Board of Governors Regenerative Medicine Institute also is the first to directly measure the effects of aging on the ability of astrocytes — the cells that provide nutrients, structure and other forms of assistance to brain neurons — to sustain motor neurons.

Cedars-Sinai investigators found a significant degree of genetic linkage in patients with no family history of ALS, shedding new light on the disease.



Peggy Allred, PT, DPT, research program administrator for the Cedars-Sinai Neuromuscular Disorders Program in the Department of Neurology



Community Outreach

Cedars-Sinai maintains a global footprint but the core of its mission is based right here in Los Angeles. In FY 2015, the institution invested nearly \$600 million in programs and services to benefit the community that has served as its home for more than a century. This deeply ingrained tradition of community service drives Cedars-Sinai to provide care for those with the greatest need, including uninsured and underinsured individuals and families as well as Medi-Cal and Medicare patients. These community-benefit activities encompass free education, screening and immunization programs; research aimed at improving health outcomes in underserved neighborhoods; and partnerships with community organizations that enhance the health of Angelenos from Skid Row to Inglewood. Cedars-Sinai's outreach efforts are as diverse as the region it serves — and illustrate the institution's commitment to empowering people to live healthier lives.

**COMMUNITY
OUTREACH**

**FERIA DE
LA SALUD**

Cedars-Sinai sent a team of nearly 500 healthcare professionals to the Los Angeles Convention Center for the 11th annual Health and Wellness Expo/Feria de la Salud presented by Telemundo 52-KVEA and The California Endowment. The team provided more than 9,800 free screenings at the event, which drew more than 30,000 attendees. Cedars-Sinai Blood Donor Services participated for the first time, registering 114 donors and collecting 84 units of blood products, and the Wasserman Breast Cancer Risk Reduction Program offered clinical exams and risk assessments. More than 50 students from the Cedars-Sinai Youth Employment and Development program provided translation and other services.

**GRANTS FOR
MENTAL HEALTH**

Cedars-Sinai grants help nonprofit community organizations provide free or low-cost mental health services to disadvantaged Los Angeles residents. Cedars-Sinai awarded \$728,000 in mental health grants to 13 organizations in fiscal year 2015. The recipients were Alcott Center for Mental Health Services, Amanecer Community Counseling Service, Beit T'Shuvah, Children's Institute Inc., CLARE Foundation, Didi Hirsch Mental Health Services, Jewish Family Service of Los Angeles, Korean American Family Services, Los Angeles LGBT Center, Ocean Park Community Center, Para Los Niños, Southern California Counseling Center and the Maple Counseling Center.

**STRAIGHT TALK
ABOUT END OF LIFE**

Cedars-Sinai is a leader in the nationwide movement to make advance care planning a standard component of healthcare. The institution is part of the Los Angeles Advance Care Planning Group, a coalition of 10 of the largest health systems in Southern California. The two doctors leading the effort at Cedars-Sinai partner with religious organizations to educate the public about the importance of codifying end-of-life wishes. They also encourage physicians to integrate discussion of advance directives into their practices. Half of patients are unable to participate in decisions about care at the end of life, and only 25 percent of Americans have advance directives.

**EXPLORING
HEALTHCARE
CAREERS**

Cedars-Sinai's Youth Employment and Development (YED) program enables Fairfax High School juniors and seniors to learn about careers in healthcare through job shadowing, mentoring, after-school work and classroom instruction. Over the past two decades, the program, offered in partnership with Los Angeles Unified School District and the Los Angeles County Regional Occupational Program, has assisted more than 400 youths in preparing for college and careers. More than 80 percent of participants graduate from college, pursue careers in healthcare and even land jobs at Cedars-Sinai.

**BETTER VISION,
BRIGHTER FUTURES**

Cedars-Sinai nurses offered free vision screenings over the summer to teens at four Los Angeles high schools and one middle school. COACH for Kids and Their Families®, a program of the Cedars-Sinai Maxine Dunitz Children's Health Center, tested 412 students and found that 101 had vision problems. The children's parents were offered assistance in accessing vision care through Medi-Cal or were provided vouchers from programs such as the Sight for Students VSP Vision Care Program and the COACH for Kids Gift of Sight Program. COACH's two mobile medical units visit low-income communities across Los Angeles throughout the year, providing healthcare and social services for children and families.

**25 YEARS OF
TENDING TO
MEN'S HEALTH**

Cedars-Sinai's Prostate Cancer Education and Screening Program provides free health exams and information covering much more than its name implies. The four physicians, along with nurses and other staff, who examined patients at the 25th annual event offered screenings for a variety of medical issues, including high blood pressure. Cedars-Sinai staff members promote the program throughout the year at churches and health fairs in low-income areas around Los Angeles. Some men return to the screening program year after year because they don't have regular access to healthcare.

**FOUND IN
TRANSLATION**

Korean-speaking caregivers from Cedars-Sinai put immigrants at ease and facilitated health screenings at the Koreatown Senior and Community Center. More than 300 participants took advantage of free blood pressure, cholesterol and blood glucose screenings. Sixteen Korean-speaking nurses staffed the first of two events, which included flu shots and breast health education. Of the 25 who staffed the second event, 10 nurses and one physician spoke Korean, removing the language barrier that prevents many Korean immigrants from seeking health services. A waiting list had to be created for the large number of Korean-speaking nurses interested in helping at the next event.

With Korean-speaking nurses removing the language barrier, more than 300 participants at the Koreatown Senior and Community Center took advantage of free blood pressure, cholesterol and blood glucose screenings.



Cedars-Sinai nurses provide free health screenings at the Koreatown Senior and Community Center in Los Angeles.

**COMMUNITY
OUTREACH**

**PROACTIVE CARE
FOR SAMOAN-
AMERICANS**

The organizers of an international conference of Samoan-American women asked Cedars-Sinai to provide no-cost health screenings and information for the 400 attendees to help control obesity, diabetes and other health issues that are common among this population. Staff from COACH for Kids and Their Families®, a program of the Cedars-Sinai Maxine Dunitz Children’s Health Center, provided nutrition counseling and blood pressure screenings from one of Cedars-Sinai’s mobile medical units. Another team from Cedars-Sinai offered breast health education and breast cancer risk assessments.

**STEERING
STUDENTS
TO STEM**

The Inglewood-based nonprofit African-American Male Achievers Network (A-MAN) partnered with the Cedars-Sinai Board of Governors Regenerative Medicine Institute for an engaging event for budding scientists. A-MAN’s STEM International Science Discovery and Learning Center brought middle and high school students to Cedars-Sinai’s Advanced Health Sciences Pavilion, where they toured laboratories, debated ethical issues in research, and took part in informative activities to learn more about stem cells and their many applications. The event was hosted by the Regenerative Medicine Institute as part of its Short Term Educational Experience in Research program.

**JEWISH WISDOM
AND WELLNESS**

The weeklong Jewish Wisdom & Wellness: A Festival of Learning, co-hosted by Cedars-Sinai, offered more than 95 free lectures, workshops and experiential classes encompassing a broad spectrum of Jewish thought, both ancient and modern. Rabbis, physicians, scholars, musicians, artists and others shared insights related to Judaism, health and healing with more than 3,500 participants. The festival was the second co-hosted by Cedars-Sinai, the Kalsman Institute on Judaism & Health and the Hebrew Union College–Jewish Institute of Religion. Sessions covered topics such as Jewish yoga, healing and spirituality, contemporary issues in bioethics, Zumba for the Jewish soul, caregiving and wrestling with end-of-life decisions.

**FIRST LADIES
HEALTH DAY**

Among its many outreach efforts, COACH for Kids and Their Families®, a program of the Cedars-Sinai Maxine Dunitz Children’s Health Center, offered immunizations, nutrition education and dental screenings for Koreatown residents at a health fair outside Founder’s Church of Religious Science. The event was part of the annual L.A. First Ladies Health Day — named for “first ladies,” or pastors’ wives — at the more than 30 local churches that open their doors to the community for free medical testing and health education to the underserved.

GROUP SUPPORT

After experiencing a life-changing event, whether medical or psychological, the pathway toward healing is not always easy. Cedars-Sinai offers a wide array of support groups that focus on assisting patients with life’s changes and adjustments. Among them is the Aphasia Community Group, which helps people regain their language skills after a brain injury such as a stroke or aneurysm. Group members enjoyed a rare opportunity to raise public awareness and understanding of these conditions when they attended *I Wanna Hold Your Hand*, a stage play about aphasia inspired by a former member of the group. After the performance at Theatre of NOTE in Hollywood, a group member was joined onstage by the playwright, the director, an actor and a Cedars-Sinai speech pathologist to answer audience questions.

**STEM CELL
RESEARCH WEEK**

A highlight of the Cedars-Sinai Board of Governors Regenerative Medicine Institute’s High School Outreach Program is Research Week, when students spend five days on the Cedars-Sinai campus working alongside top researchers. This year, 21 students from 12 schools — the best-attended Research Week to date — participated in hands-on sessions to learn how stem cell research is done. The week culminated in group presentations, which gave students a chance to describe their experiences and what they’d learned before an audience of researchers, physicians and parents.

SUMMER SCHOOL

The Healthy Habits Exercise in the Park program, launched in 2012, attracts several hundred adults each summer. The one-hour morning workouts are held four days a week from June through August in three locations: Vineyard Recreation Center, Queen Anne Recreation Center and Westside Neighborhood Park. The sessions are led by educators in Cedars-Sinai’s Healthy Habits program, which provides nutrition and fitness education year-round for schoolchildren and parents in Mid-City Los Angeles and surrounding areas.

Helping parents set a good example for their kids is just one of the positive effects of the Healthy Habits Exercise in the Park program. Participants have lost weight, toned muscles and made friends.



Patricia Castillo and her baby take a fitness class at Westside Neighborhood Park in West Adams as part of the Healthy Habits Exercise in the Park program.

**COMMUNITY
OUTREACH**

**BIRTH
COMMUNITY
DAY**

More than 200 medical professionals and advocates of alternative childbirth convened at Cedars-Sinai for the third annual Birth Community Day. The summit fostered sharing of best practices and trends in labor and delivery medicine while highlighting Cedars-Sinai's efforts at the forefront of a movement to offer greater choice and honor women's preferences while still prioritizing safety and evidence-based care. The gathering included physicians, labor and delivery nurses, maternal-fetal medicine specialists, doulas, certified nurse midwives and lay midwives. The event was organized by the Cedars-Sinai Customization of Care Task Force in collaboration with two community groups led by doulas: DONA International and BINI Birth.

**SAFE HARBOR FOR
THE UNDERSERVED**

Cedars-Sinai was among the organizations that partnered with Care Harbor, a Los Angeles-based nonprofit, to offer a free, four-day health clinic at the Los Angeles Sports Arena. The annual event drew thousands of uninsured, underinsured and at-risk individuals who received medical, dental and vision care as well as prevention resources and follow-up referrals.

**CALMER
CLASSROOMS**

A daylong conference presented by Cedars-Sinai's Psychological Trauma Center brought together 110 principals, teachers and staff from 25 Los Angeles schools to explore "Positive Strategies to Address Challenging Student Behavior." The educators participated in a jam session and learned about Native American talking sticks, Tibetan singing bowls, and other tools to relieve stress and encourage calm in the classroom.

CPR SAVES LIVES

A grant from Cedars-Sinai enabled the American Heart Association to offer CPR training to parents in low-income Mid-City neighborhoods. The training sessions were held at 15 schools where Cedars-Sinai offers Healthy Habits workshops for children. Nearly 300 parents participated, with most courses conducted in Spanish. Each participant was given a CPR Anytime kit containing a practice mannequin and a DVD in English and Spanish. Cedars-Sinai also provided funds for free CPR training and CPR Anytime kits for students at King Drew Medical Magnet High School.

BRAIN POWER

Seventh and eighth graders participating in Cedars-Sinai's Brainworks program learned how regular exercise can improve brain health. Students interacted with neurosurgeons, neurologists, neuroscientists and other health professionals at nine information stations. Brainworks was founded in 1998 to help inspire the next generation of scientists, doctors and other health professionals. This year's program included 140 participants from underserved Los Angeles middle schools.

**TEEN BIOMEDICAL
RESEARCHERS**

Long Beach Polytechnic High School students showcased biomedical research projects in a presentation hosted by Cedars-Sinai. The students were graduates of an annual biomedical research course offered in conjunction with the UCLA Clinical and Translational Science Institute, a consortium that includes Cedars-Sinai. Funded by the National Institutes of Health, the course encourages young, aspiring scientists to consider careers in medical research. Since its inception in 2000, the course has been completed by 201 students pursuing work in a wide array of disciplines. This year, four researchers from Cedars-Sinai were mentors for seniors from Long Beach Poly's magnet program for gifted students.

**EMBRACING
HEALTHY HABITS
FOR KIDS**

Cedars-Sinai's Healthy Habits program provides workshops on nutrition, fitness and obesity prevention for elementary and middle school students, as well as their teachers and parents, at more than 40 Los Angeles schools and community sites. The 10-week program focuses on second graders, with refresher courses for third and fourth graders. Arlington Heights Elementary, which held a jog-a-thon, and Marvin Avenue Elementary, which hosted a nutrition fair, are among the schools that have embraced Healthy Habits by staging school-wide special events with support from Cedars-Sinai staff.

“These events are great examples of the changes we’re seeing in our partner schools’ environment. Teachers organized both of these school-wide events. This is a strong sign that the program is paying off.”

—Carolyn Buenaflor, MPH, associate director, Healthy Habits





Education

Cedars-Sinai's robust academic enterprise shapes the experts who will help redefine medicine for the next generation. Competitive medical residency and fellowship programs prepare trainees for an extensive range of specialty and subspecialty areas. The Graduate Program in Biomedical Sciences and Translational Medicine focuses on transforming innovative concepts into impactful treatments. Cedars-Sinai's nurse training programs teach specialized skills and encourage leadership. The institution also provides training for allied health professionals and postdoctoral scientists. Education at Cedars-Sinai combines rigorous academic curricula with mentorship from globally recognized faculty.

EDUCATION

INAUGURAL NEUROLOGY RESIDENTS

Cedars-Sinai graduated its inaugural class of neurology residents in June, and the three new alumni have been accepted into prestigious fellowship programs, including Cedars-Sinai. The Division of Neurology became a full-fledged department in 2010, the residency program was approved in 2011 and the first class began in 2012. The program already has received full accreditation through 2025 and is highly sought after by neurology residency candidates. Last year, 190 applied for three positions. The Neurology Residency Program is part of Cedars-Sinai's Graduate Medical Education Program, which includes approximately 350 residents and fellows in numerous disciplines.

PHD GRADS TRANSLATE SCIENCE INTO TREATMENT

The Cedars-Sinai Graduate Program in Biomedical Science and Translational Medicine graduated its third class in FY 2015. The program merges a rigorous curriculum in scientific and translational medicine with mentoring by researchers and clinicians, and broad exposure to clinical medicine. Thirty-five students are enrolled in the eight-year-old program, which focuses on on the translation of discoveries into potential treatments and cures. Eight to nine students are expected to graduate in 2016. This year's commencement ceremonies also saw the inaugural Cedars-Sinai Prize for Research in Scientific Medicine (PRISM) awarded to a faculty member for outstanding scientific breakthroughs in organ transplantation.

HEAD OF THE CLASS

While healthcare leaders call for increased training for nurses across the country, the corps of crucial, frontline caregivers at Cedars-Sinai already has jumped to the head of the class. Some 80 percent of the institution's direct care nurses hold a BS in nursing and 79 percent have specialty certifications — such as critical care, rehabilitation and neonatal intensive care — compared with the national average of 54 percent and 38 percent respectively. All nurse managers and educators at Cedars-Sinai have a bachelor's degree, and 98 percent hold master's degrees. The number of nurses with advanced academic degrees and certifications has climbed steadily since 2002, when the Geri and Richard Brawerman Nursing Institute was founded to provide extensive education programs for Cedars-Sinai nurses.

INTER-INSTITUTION SYMPOSIUM

More than 150 students and researchers from throughout California participated in Cedars-Sinai's second Inter-Institution Graduate Student Symposium, a forum for students to present research, share ideas and receive career advice. Organized by the Graduate Student Association of the Cedars-Sinai Graduate Program in Biomedical Science and Translational Medicine, the event brought together participants from several academic institutions and biomedical centers. The all-day symposium included presentations, poster sessions, an awards ceremony and a networking social hour. At a meet-the-experts luncheon and career panel, students had opportunities to ask questions of seasoned researchers who have followed varied scientific career paths.

NEW MODELS OF CARE

Cedars-Sinai is part of a new, independent consortium of community, health system, and policy and academic partners that will participate in the National Clinician Scholars Program. The program will train physicians and nurses to become change agents who can lead policy-relevant research and forge partnerships to improve healthcare. Through intensive mentorship and embedded experience in communities, healthcare systems, government, foundations and think tanks, the program aims to cultivate health equity, eliminate health disparities, invent new models of care and achieve higher-quality healthcare at lower costs. Cedars-Sinai will recruit and support one fellow for the 2016-17 academic year.

NANOMEDICINE'S PRESENT AND FUTURE

Cedars-Sinai's third Nanomedicine for Imaging and Treatment Conference attracted two dozen experts from around the world. Academic researchers, clinicians, representatives from the National Institutes of Health (NIH) and scientists from biotech industries presented information on emerging trends in the study and treatment of diseases at the molecular and atomic levels. More than 350 attended — double the draw of the previous conference in 2013. They learned about the latest preclinical and clinical advances against cancer, neurodegenerative disorders and other pathological conditions; the role of the NIH in nanodrug and nano-imaging development; and issues relevant to the biotech industry and the legal profession.

SIMULATION CENTER EARNS FULL ACCREDITATION

The Cedars-Sinai Women's Guild Simulation Center for Advanced Clinical Skills received full accreditation from both the American College of Surgeons and the Society for Simulation in Healthcare. Awarded just 19 months after the center's opening, these designations place Cedars-Sinai among a select group of institutions internationally. Nearly 2,000 users per month from Cedars-Sinai and elsewhere benefit from the 10,000-square-foot simulation center, which replicates clinical and surgical settings by enabling procedures to be practiced on high-tech human patient simulators that mimic real-life responses, including breathing, crying and giving birth.

Nearly 2,000 users per month benefit from the Women's Guild Simulation Center for Advanced Clinical Skills, which received full accreditation just 19 months after its opening.



EDUCATION

SPIRITUAL SUPPORT STUDIES	TRANSLATIONAL RESEARCH CURRICULUM	THE 'IT' PLACE TO WORK IN TECH	INAUGURAL GASTROINTESTINAL FELLOWS	POSTDOC SOCIETY CELEBRATES FIFTH YEAR	PREPARATION FOR AN EVOLVING ROLE
<p>Representing a broad array of religious faiths and cultural backgrounds, Cedars-Sinai's 12 professionally trained chaplains function as an integral part of the interdisciplinary healthcare team. They supported 20,283 patients in FY 2015. The spiritual care program also offers Clinical Pastoral Education (CPE) interns an opportunity to provide spiritual support to a varied population of patients, family members and staff. The CPE program grew this year to include 20 interns and seminarians, who benefit from the learning atmosphere of a teaching hospital with training programs for physicians, nurses and other professionals. A total of 52 interns have graduated from the program.</p>	<p>The seventh class of the Cedars-Sinai Clinical Scholars Program graduated at a ceremony in Harvey Morse Auditorium. Established in 2007, the two-year program provides funding, career guidance, education and skill acquisition for clinicians wanting to pursue careers in academic medicine. It includes a curriculum in translational medicine and clinical research, plus research under a mentor's supervision. The event also introduced the eight clinical scholars who make up the program's incoming class; they will graduate in 2016.</p>	<p><i>Computerworld</i>, one of the leading magazines devoted to the digital age, listed Cedars-Sinai among the 100 best places to work in information technology for the seventh consecutive year. The institution's innovative Take Two and New Grad programs were instrumental in driving the 2015 ranking. The Take Two initiative rewards innovative IT thinkers by providing them with a small capital budget and giving them two months to turn an idea into reality. The New Grad program recruits graduate school students for entry-level positions. <i>Computerworld</i> ranks organizations in a wide range of industries according to their benefits and compensation, career development, training programs and retention. Cedars-Sinai placed 21st among employers of 5,000 or more.</p>	<p>The first three fellows in the new Cedars-Sinai Gastrointestinal Fellowship Program joined the institution this year. Recognized by the Accreditation Council for Graduate Medical Education, the three-year, comprehensive program at Cedars-Sinai provides a scholarly training environment for the fellows, who benefit from the state-of-the-art gastrointestinal endoscopy unit, where more than 500 procedures are performed each month. Outstanding research facilities and supervision are available in multiple fields of gastroenterology, including pancreatic diseases, inflammatory bowel disease, liver disease, nutrition and motility disorders of the gastrointestinal tract.</p>	<p>The Cedars-Sinai Postdoc Society, a peer-to-peer group that fosters networking and collaboration among junior researchers, celebrated its fifth anniversary during the annual National Postdoc Appreciation Week. Events included an open house with prize drawings, a seminar about technology-transfer opportunities, and networking and educational events. An outgrowth of the Cedars-Sinai Postdoctoral Scientist Program, the society has grown from 85 to some 100 members over the past three years, and maintains a busy calendar of professional, educational and social activities at Cedars-Sinai and in the community.</p>	<p>The Cedars-Sinai Department of Pharmacy Services offers an American Society of Health-System Pharmacists-accredited residency in pharmacy practice, a second-year specialized residency in pharmacy management and leadership, an advanced residency in transitions of care and a residency in hematology/oncology pharmacy practice. Affiliated with schools throughout California, the teaching program creates an environment that enables pharmacists to maintain a leading-edge practice as the role of the pharmacist continues to evolve. Increasingly, pharmacists provide direct patient care, from medication management and adherence to working with high-risk patients to reduce costly readmissions and improve health outcomes.</p>

Cedars-Sinai dental residents now provide general dentistry services at local clinics – the Eisner Pediatric and Family Medical Center in downtown Los Angeles and the Children's Dental Center of Greater Los Angeles in Inglewood.



Alexa Martin, DMD, a dental resident at Cedars-Sinai, with 2-year-old Desire Garcia at the Eisner Pediatric and Family Medical Center in downtown Los Angeles.

DENTAL RESIDENCY PROGRAM EXPANDS

Cedars-Sinai's Hospital Dental Residency Program reopened after a yearlong hiatus with four new residents and an expanded scope. The program's residents take dental-related calls in the Emergency Department, provide dental care for oncology and other patients with complex conditions, complete dental clearance exams for patients in the transplant and cardiac programs, and respond to requests for consults and dental treatment throughout the medical center. In a new program component, residents provide general dentistry services at local clinics – the Eisner Pediatric and Family Medical Center in downtown Los Angeles and the Children's Dental Center of Greater Los Angeles in Inglewood – giving trainees valuable experience while benefiting the community.



THE CAMPAIGN
FOR
CEDARS-SINAI

The Campaign for Cedars-Sinai

Every scientific breakthrough starts with donors. The Campaign for Cedars-Sinai – the institution’s most ambitious philanthropic effort to date – will raise \$600 million to sustain and grow leading-edge discovery. At Cedars-Sinai, hundreds of research projects are exploring new treatment possibilities in cancer, regenerative medicine, disease prevention, aging, and diseases of the heart and brain. It’s a comprehensive approach to research that helps advance the understanding of disease and forge new frontiers in medicine. The most important medical breakthroughs start with generous donors who contribute to Cedars-Sinai research in a vital way. Because of this invaluable assistance, research teams can pursue new treatments and technologies that will help change lives.

FY 2015 FUNDRAISING HIGHLIGHTS

(July 1, 2014 – June 30, 2015)

Growing support for lifesaving initiatives in clinical care, research and education:

5,083 are new donors.

Giving back:

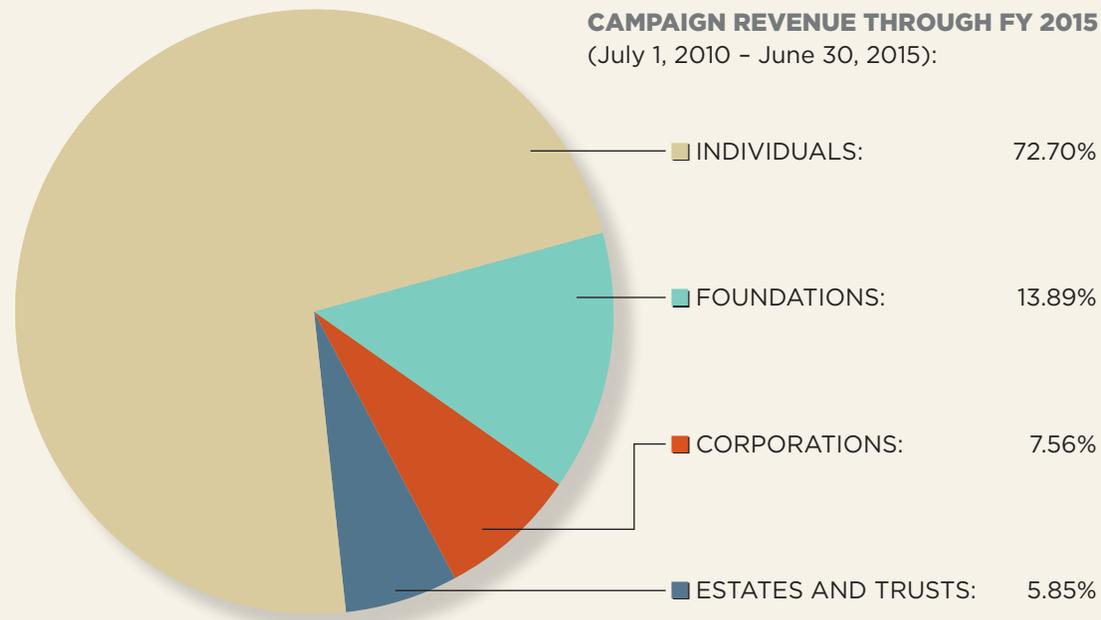
74 percent of donors are grateful patients.

Donors near and far:

Donors represent all 50 states.

Every gift counts:

77 percent of donors gave less than \$250.



ABOUT THE CAMPAIGN

Cedars-Sinai has never been about small ideas.

Thinking big, being bold and leading the field allow Cedars-Sinai medical teams to continually push the boundaries of lifesaving research.

Now, the institution has embarked upon a far-reaching effort to raise \$600 million to fund innovative research that will advance the understanding of disease, forge new frontiers in medicine and, ultimately, translate into groundbreaking treatments and novel approaches to disease prevention.

Some members of the research team may never step across the threshold of the laboratory: They are the grateful patients, community members and other supporters who understand the value of research and fund the vital work of doctors and scientists. The vision and generosity of these donors may one day end disease, reduce suffering and change the way physicians address illness.

The Campaign for Cedars-Sinai is built upon cross-disciplinary collaboration and innovation, focusing on five key areas:

- Disease Prevention and Control**
From diabetes to cancer to heart disease, researchers explore advanced diagnosis, treatment and disease management approaches that have the potential to improve the quality of life for thousands suffering from conditions such as inflammatory bowel disease, Crohn's disease, diabetes, heart disease and more.
- Precision Medicine and Targeted Therapies**
Every patient is unique. A one-size-fits-all approach to medicine is no longer appropriate. Cedars-Sinai is leading the way with precision medicine that customizes treatments for each patient, greatly increasing success rates and shortening recovery times.
- Aging and Longevity**
With aging, new healthcare challenges arise. Promising research at Cedars-Sinai is exploring ways to increase longevity and vastly transform quality of life for seniors, helping ensure active, fulfilled and dynamic individuals throughout the age spectrum.
- Innovations in Healthcare and Technology**
While technology affords opportunities to take research into areas once considered science fiction, innovations must be translated into efficient, effective and appropriate healthcare options. Cedars-Sinai focuses on establishing cross-disciplinary collaborations and institution-wide initiatives to open up new avenues in research, diagnosis and treatment.
- Education and Training**
Cedars-Sinai has a long tradition of educating and mentoring the next generation of researchers, physicians and nurses — an effort fundamental to the institution's core values. Fellowships, endowed chairs and residency programs ensure that knowledge is shared across disciplines and generations, leading to fresh, collaborative medical discoveries.

**DISEASE PREVENTION
AND CONTROL**

Throughout Cedars-Sinai, healthcare teams are dedicated to pursuing research and advancing new treatments and technologies to save lives, educate patients and cultivate healthy habits. Key areas for funding within the campaign include cancer, diabetes and obesity, advanced heart failure and inflammatory bowel disease.

Philanthropic and forward-thinking supporters such as Sports Spectacular and Elliot and Alana Megdal are critical to these efforts.

SPORTS SPECTACULAR

Sports Spectacular celebrated its 30th anniversary at a gala attended by world-class athletes, healthcare professionals and entertainment industry leaders. The event recognized sportscaster and former NFL player Jim Hill for his many years of service to the organization and also honored the L.A. Kings and NBA player Russell Westbrook. “It was a great success,” said Sports Spectacular Executive Director Beth Moskowitz. “And the crowd of over 1,700 showed us tremendous support.” The event benefited the Sports Spectacular Diabetes and Obesity Wellness and Research Center at Cedars-Sinai, which will develop new ways to predict, prevent, treat and cure diabetes and obesity. These serious medical conditions are so closely linked they are sometimes referred to as “diabetesity,” and can lead to other life-threatening illnesses such as heart disease and stroke, kidney disease and nervous system damage. With personalized counseling about nutrition, exercise and medication, the center empowers patients to manage diabetes for themselves and their loved ones. It also provides support for school-based prevention education through Cedars-Sinai’s Healthy Habits program, targeting underserved students, schools and communities.

ELLIOT AND ALANA MEGDAL

When Alana Megdal was diagnosed with rheumatoid arthritis, she turned to Cedars-Sinai for medical care — but found much more. “My diagnosis was very isolating,” she said. “All of a sudden, my whole life changed. Dr. [Michael] Weisman [director of Cedars-Sinai’s Division of Rheumatology] showed such compassion and caring. It wasn’t just about his great skill; it was about feeling like I wasn’t alone in the fight.” Rheumatoid arthritis is a chronic disease in which the immune system mistakenly attacks the body’s own tissues, affecting organs as well as joints. The disease impacts all ages and can be particularly debilitating for children who face joint-replacement surgery, compromised mobility and misunderstanding from peers. Alana and her husband, Elliot, contribute to Cedars-Sinai in the hope that a cure can be found. “With this disease, it would be easy to give up,” Alana said. “But we aren’t giving up. We are going to fight.”

**PRECISION MEDICINE AND
TARGETED THERAPIES**

Matching the right patient with the right treatment — at the right dose, given at the right time — can transform a person’s health. Cedars-Sinai is a leader in precision medicine, which gives patients more options and more individualized treatments than ever before.

Philanthropic support from donors such as Dan and Melanie Spellens and Beverly and Arthur Shorin allow Cedars-Sinai’s healthcare teams to further advance the promising science of precision medicine.

**DAN AND MELANIE
SPELLENS**

Dan and Melanie Spellens are devoting time, energy and resources to the work of Robert H. Baloh, MD, PhD, director of Neuromuscular Medicine at Cedars-Sinai and the Ben Winters Chair in Regenerative Medicine, as he pioneers therapeutic approaches to treat and hopefully one day cure amyotrophic lateral sclerosis (ALS). Dan, who suffers from the disease — a neurodegenerative illness with a survival time that rarely exceeds five years past diagnosis — hopes their efforts, which have raised more than \$160,000 to date, will make a critical difference for future ALS patients. “Dr. Baloh’s work has the power to save lives,” Dan said. “I don’t believe I will be able to enjoy the fruits of his research, but I do believe others will benefit from the forward-thinking creativity and medical breakthroughs at Cedars-Sinai.”

**BEVERLY AND ARTHUR
SHORIN**

Celebrating the courageous journey of their daughter, Amy Silverstein, a two-time heart transplant recipient, Beverly and Arthur Shorin made a generous bequest from their estate to support research led by Jon Kobashigawa, MD, director of the Heart Transplant Program and the DSL/Thomas D. Gordon Chair in Heart Transplantation Medicine at Cedars-Sinai. Amy was a healthy 24-year-old law student when her heart suddenly started to fail. A year later, near death, she received the heart of a 13-year-old girl. Amy lived with her new heart for 26 years, far longer than doctors predicted. Last year, however, the transplanted heart failed, and she turned to Kobashigawa for support, ultimately receiving a second new heart. “The care at Cedars-Sinai is exceptional,” Amy said. “What I got there was not just a new heart but also a better quality of life.”

AGING AND LONGEVITY

Cancer, diabetes, cardiovascular disease, Alzheimer’s disease, osteoporosis and other health problems often compromise quality of life for those over 65. Cedars-Sinai envisions a future in which older individuals enjoy health and independence, remaining physically active, vibrant members of their families and communities. Cedars-Sinai is dedicated to keeping this older population well and providing superior care when needed.

Philanthropic support from Susan and David Wilstein, The Brain Trust and many others helps fund promising research and pioneering programs for the aging population.

SUSAN AND DAVID
WILSTEIN

Ranking among Los Angeles’ most philanthropic and community-minded couples, David and Susan Wilstein recently committed \$5 million to name the Susan and David Wilstein Memory Disorders Research Initiative at Cedars-Sinai. The gift will leverage the combined power of the departments of Neurosurgery and Neurology as they tackle Alzheimer’s disease and other forms of dementia. The potential impact of the gift is sweeping, but its origins are personal. After experiencing a fall at home, Susan had a brain bleed and slipped into a coma. Her recovery was remarkable, but she struggles with short-term memory loss, and she and David are committed to reshaping the understanding of such ailments. “We don’t want it just to be about giving money — we are hoping to push the field forward,” Susan said.

THE BRAIN TRUST

Formed in 1998, The Brain Trust is a dynamic group of volunteers who raise funds to expand the work of Keith L. Black, MD — chair of the Department of Neurosurgery, director of the Maxine Dunitz Neurosurgical Institute and the Johnnie L. Cochran Jr. Brain Tumor Center, and the Ruth and Lawrence Harvey Chair in Neuroscience — and his team as they seek to treat and cure diseases of the brain and central nervous system. He and his expert team are pursuing a bold new frontier in the prevention and treatment of disorders of the brain and central nervous system, including pediatric and adult brain tumors, Alzheimer’s disease, Parkinson’s disease, brain trauma, spinal deformities, epilepsy, stroke, pituitary tumors, aneurysm, ALS and more. According to The Brain Trust Founding and Executive Member Gloria Mitchell: “It’s a challenge to get resources to the physicians and scientists who have a novel or groundbreaking idea — and that’s what The Brain Trust is all about. The work conducted by Dr. Black’s team motivates us, their progress inspires us and their dedication keeps our passion alive.”

INNOVATIONS IN
HEALTHCARE AND
TECHNOLOGY

The changing healthcare landscape calls for new approaches to research, diagnosis and treatment. With this in mind, Cedars-Sinai has established institution-wide measures that foster innovation across medical disciplines. For example, the OR 360 project has developed a high-tech operating room of the future that allows researchers to explore innovative surgical techniques in many specialties.

Donors such as Toni and Emmet Stephenson and Sondra and Marvin Smalley help fund innovative programs already underway as well as proposed initiatives that will push the boundaries of discovery.

TONI AND EMMET
STEPHENSON

Prolific philanthropists — and devoted practitioners of Kaizen, the Japanese business philosophy celebrated for reducing waste and promoting efficiency — Toni and Emmet Stephenson have teamed up with Cedars-Sinai to launch the Healthcare Innovation Network, a quality-improvement consultancy for hospitals. The network will build on Cedars-Sinai’s OR 360, a simulation lab for the operating room of the future, which can reduce medical errors by 25 percent to 50 percent by scrutinizing disruptions in the flow of care. “We have seen the huge impact that continuous improvement can have on any system,” said Emmet, who, along with Toni, founded a business-services company that helped software giants like Microsoft streamline their operations and bolster their bottom line. The Stephensons donated \$1 million to launch the new project, which Emmet noted “has the potential to help every human being, both today and in the future.”

SONDRA AND MARVIN
SMALLEY

Sondra and Marvin Smalley have served on the Cedars-Sinai Board of Governors for four decades. Their association with Cedars-Sinai goes even further back, as all four of their children were born at the original Cedars of Lebanon Hospital. “Our gift of \$250,000 will help support the Women’s Guild Simulation Center for Advanced Clinical Skills, which will enable the clinicians to practice their skills in a safe environment with innovative medical devices,” the Smalleys said. “We are so fortunate to be living in a community that has such an outstanding medical center, and we are proud to participate in this extraordinary facility.”

EDUCATION AND TRAINING

JEANIE BUSS

Cedars-Sinai is among the few freestanding academic medical centers in the country that provide training for medical students, residents, post-residency fellows and nurses. More than 400 residents and fellows are working and learning in more than 35 accredited training programs at Cedars-Sinai. Scientists in the institution's PhD program are trained in the field of translational research.

Funding for education from donors such as Jeanie Buss and The Heart Foundation is essential to providing outstanding patient care based on the most current medical discoveries.

As co-owner and president of the Los Angeles Lakers, Jeanie Buss knows how to build a winning team. This year, she leveraged that expertise to take on cancer, establishing the Dr. Jerry H. Buss Surgical Oncology Fellowship. Founded in memory of her late father, the fellowship offers advanced training for cancer surgeon-scientists at the leading edge of treatment and discovery, pairing them with seasoned mentors who can help them develop critical skills. For Buss, the key to effective philanthropy is building a team that works in harmony. "Everybody has to play a part," she said. "Everybody has to pull together in the same direction. If you can do that, you can accomplish a lot."

THE HEART FOUNDATION

Founded in memory of Steven Cohen, who lost his life to sudden cardiac death at age 35, The Heart Foundation celebrated its 20th anniversary with establishment of the Steven S. Cohen Endowed Fellowship in Atherosclerosis Research. Inaugural fellow Xiaoning Zhao, PhD, is collaborating with world-class physician-scientists at Cedars-Sinai to find a cure for heart disease and promote early detection. "Steve was vibrant and healthy, and all of us were shocked by his loss," said foundation chair (and Cohen's best friend) Mark Litman. "Yet, out of that tragedy came the drive to do something to honor his memory." Two decades later, The Heart Foundation is still delivering on its promise, promoting and advancing research that is revolutionizing the way heart disease is treated.

FY 2015 MILESTONE GIFTS TO CEDARS-SINAI

(July 1, 2014 – June 30, 2015)

Dr. Miriam and Sheldon G. Adelson

Anonymous

Valerie Reid Aronsohn* and Richard Aronsohn, MD*

The Saul Brandman Foundation

Judy and Bernard Briskin

Jeanie Buss

Steven and Alexandra Cohen Foundation

Diane and Guilford* Glazer

Erika J. Glazer

National Philanthropic Trust

Margie & Robert E. Petersen Foundation

The Shorin/Silverstein Family

Emmet and Toni Stephenson and Family

Judith Toscano*

Tower Cancer Research Foundation

Weingart Foundation

Susan and David Wilstein

* Deceased

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

THE NUMBERS

JULY 1, 2014-
JUNE 30, 2015



886
LICENSED BEDS



1,526
RESEARCH PROJECTS



243,040
PATIENT DAYS
(approximately 666 per day)



11,625
FULL-TIME EMPLOYEES



697,539
OUTPATIENT VISITS
(approximately 1,911 per day)



2,051
PHYSICIANS ON
MEDICAL STAFF



47,320
ADMISSIONS



481
ENROLLED RESIDENT
AND FELLOW POSITIONS



88,422
EMERGENCY VISITS



2,897
VOLUNTEERS
182,153
VOLUNTEER HOURS



225,163
PATIENTS CARED FOR
BY CEDARS-SINAI
MEDICAL NETWORK



\$659,947,000
CONTRIBUTION FOR
COMMUNITY BENEFIT

FINANCIAL SNAPSHOT

INCOME AND EXPENSES

Revenues from patient care and other sources	\$ 3,090,947,000
Expenses	<u>\$ 2,711,277,000</u>
Operating income	\$ 379,670,000
Investment income	\$ (13,606,000)
Net income to reinvest in Cedars-Sinai's mission	<u>\$ 366,064,000</u>

USES OF NET INCOME

Long-term debt to be repaid	\$ 1,045,381,000
Capital expenditures for facilities, renovation, technology and other	\$ 170,470,000
This year's payment on long-term debt	\$ 44,449,000

COMMUNITY BENEFIT CONTRIBUTION

Unreimbursed cost of direct medical care for the poor and underserved (Excludes the unreimbursed cost of caring for Medicare patients)	\$ 89,597,000
Charity care (\$21,785,000)	
Unreimbursed cost of caring for Medi-Cal patients (\$67,812,000)	
Unreimbursed cost of direct medical care for Medicare patients	\$ 288,682,000
Community benefit programs, 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)	\$ 103,512,000
Research programs (Includes translational and clinical research and studies on healthcare delivery)	\$ 178,156,000
Research funding from grants (\$102,496,000)	
Research net of funding from grants (\$75,660,000)	

**Total quantifiable community benefits, including
the unreimbursed cost of caring for Medicare patients** **\$ 659,947,000**

**LEADERSHIP
2015**

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TRUSTEES**

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