

Cedars-Sinai
Report to the Community
2012



CEDARS-SINAI®

Cedars-Sinai By the Numbers

July 1, 2010 - June 30, 2011

958	Licensed Beds
279,189	Patient Days (approx. 765 per day)
601,412	Outpatient Visits (approx. 1,648 per day)
50,453	Inpatient Visits
79,707	Emergency Department Visits (approx. 218 per day)
120,469	Patients Cared for by Cedars-Sinai Medical Delivery Network
1,155	Research Projects
\$50.6 million	Research Funding from NIH and Other Federal Sources
485	Medical Residents and Fellows Trained
\$59.4 million	Donations
189,013	Volunteer Hours
\$600.6 million	Community Benefit Contribution (Includes traditional charity care for the uninsured and those with limited means, the unreimbursed cost of caring for Medi-Cal and Medicare patients, the unreimbursed cost of specialty state programs, translational and clinical research, health professions education and hundreds of community service programs at the Medical Center and in local schools, homeless shelters and community centers.)



For more than a century, one of Cedars-Sinai's strengths has been the ability to adapt to change—often serving as a national leader of change—while not losing sight of our core mission and values. In 2012, with our nation's healthcare system in the midst of unprecedented change, Cedars-Sinai is well positioned not only to adapt, but to lead.

In the pages ahead, you will see many examples of how we are leading productive change in healthcare. Not surprisingly, some of this change is occurring in our research laboratories, where our scientists are making discoveries that could revolutionize how diseases are treated. Change is also occurring in our operating rooms, outpatient centers and other patient-care areas, where our medical staff, nurses, pharmacists and other staff

are leaders in developing innovative ways to provide the highest quality, compassionate care for our patients.

Change is also highly visible in the design of the Advanced Health Sciences Pavilion that is going up at the eastern edge of our campus. This world-class facility, scheduled to open in 2013, will house outpatient care and medical research under one roof, integrating clinical and scientific programs so patients can benefit more quickly from the latest discoveries.

Cedars-Sinai also leads change in ways that may not be as readily apparent. For example, in our systemwide Cedars-Sinai Medicine initiative, our physicians and staff are examining every step of our healthcare delivery process to identify changes that will further enhance the delivery of care that is

more cost-effective and coordinated, and raise the bar on healthcare quality for the nation.

Our ability to provide leadership in today's rapidly changing healthcare environment is due not only to the extraordinary dedication and skill of the people who work and practice at Cedars-Sinai, but also to the ongoing support we receive from those in our community who share our dedication to improving patients' lives. Thank you for your support as Cedars-Sinai grows and evolves to meet the medical needs of our community and patients across the globe.

In the photo above, Lawrence B. Platt (left) and Thomas M. Priselac stand in front of the construction site of the Advanced Health Sciences Pavilion.

A handwritten signature in cursive script that reads "L. B. Platt".

Lawrence B. Platt,
Chair, Board of Directors

A handwritten signature in cursive script that reads "Thomas M. Priselac".

Thomas M. Priselac,
President and CEO



Patient Care

The combined efforts of Cedars-Sinai's **2,100 physicians, 2,800 nurses and other healthcare professionals are a primary reason the Medical Center consistently earns high rankings for quality of patient care.** In addition to the direct care they provide to patients, the members of our clinical care staff are involved in many other aspects of the Medical Center, including ongoing work on committees to continually enhance numerous aspects of clinical quality and safety. Among these institution-wide initiatives is Cedars-Sinai Medicine, a multi-year, multidisciplinary effort that involves more than 300 physicians and other staff who are developing strategies across a wide range of diseases and conditions to improve outcomes for patients.

Cedars-Sinai has received its third consecutive **Magnet designation for nursing excellence**, making it the hospital with the longest-running Magnet designation in California. The American Nurses Credentialing Center, which awards this prestigious designation, noted that Cedars-Sinai's nursing services represent the "highest standards in the nation and internationally."

Twelve Cedars-Sinai specialties were **ranked among the nation's best in the U.S. News & World Report 2011 "America's Best Hospitals" issue.** Of more than 4,825 hospitals considered for the rankings nationwide, only 140 scored high enough to rank in even a single specialty. Cedars-Sinai ranked in cardiology and heart surgery, neurology and neurosurgery, cancer, orthopaedics, gastroenterology, gynecology, geriatrics, nephrology, diabetes and endocrinology, pulmonology, urology, and ear, nose and throat.

Cedars-Sinai continues to take the lead on national patient safety goals such as preventing hospital-acquired infections. One initiative focuses on preventing central line-associated blood-stream infections (CLABSI). An estimated 250,000 to 500,000 occur in hospitals nationwide each year. Since Cedars-Sinai implemented a number of recommendations from its CLABSI task force, the Medical Center has virtually eliminated central line-associated blood stream infections from multidrug-resistant organisms and dramatically reduced other central line infections.

The first facility of its kind in California, the 30-bed **Advanced Heart Failure Unit is solely for patients diagnosed with advanced congestive heart failure or those waiting for a heart transplant.** The unit offers active hemodynamic monitoring, which measures heart function in real time. It's also an ideal place to implement new programs designed to reduce repeat hospitalizations, including patient education and coordination of post-discharge care. Healthcare professionals in this unit include a team of specialized physicians and nurses as well as social workers, physical therapists and nutritionists.

The Cedars-Sinai Samuel Oschin Cancer Center is **one of only a few centers in the United States that provides outpatient cancer treatments and support services 24 hours a day, seven days a week.** It's also one of the busiest. Each year, more than 9,000 adults and children receive treatment at the outpatient center from oncologists specializing in common and rare cancers.

Physicians at the Maxine Dunitz Children's Health Center Neonatal Intensive Care Unit were **among the first to use special cooling blankets for newborns who are oxygen-deprived.** The cooling blanket prevents or minimizes injury by lowering body temperature to 92.3 degrees to slow metabolism. During the cooling treatment, administered by a specially trained team of nurses guided by neonatologists, the baby is closely monitored on a continuous, 24-hour basis.

Cedars-Sinai Medical Group and Cedars-Sinai Health Associates have once again been ranked among the 25 top physician groups in California. This 2011 "elite status" recognition by the California Association of Physician Groups is based on their ability to achieve the triple goals of better technical quality, responsive patient experience and affordability. The Medical Group was also named a top performer by the Integrated Healthcare Association. This is the seventh consecutive year the group has been ranked among California's top 44 physician groups and received the prestigious Pay-for-Performance award based on clinical quality, patient experience, advanced use of information technology and coordinated diabetes care.

Highly trained surgeons performed 30,000 surgeries in 42 operating rooms at Cedars-Sinai's inpatient and outpatient facilities in FY11. **More than one-third of all surgeries are now performed as minimally invasive procedures**, with physicians using the most advanced technology available for laparoscopic and robotic surgery.

PATIENT CARE

At Cedars-Sinai, care doesn't stop when a patient is discharged. **Nurses make about 4,000 calls a month to patients at home** to ask if they've been able to fill prescriptions and answer any questions they may have about their discharge instructions, recovery process and follow-up medical visits. For example, they check on new mothers and ask about pediatric appointments, and call congestive heart failure patients to ensure no problems are arising that might lead to a return trip to the hospital.

Hand hygiene is a crucial part of the nationwide fight against hospital-acquired infections, and Cedars-Sinai is particularly focused on **encouraging everyone who enters the Medical Center to use the hand sanitizer** that is widely available on patient floors and in visitor waiting areas. New elevator posters promoting proper hand hygiene were installed in 2011. Many feature Cedar-Sinai employees from various departments and specialties, including surgery, nursing, research, finance, pharmacy and environmental services. Medical staff leadership also is taking the initiative to improve physician hand hygiene compliance. Measures such as these are getting results. Hand hygiene compliance reached an all-time high at Cedars-Sinai in the past year.

The Cedars-Sinai Prenatal Diagnosis Center is **using an advanced genetic testing method to give parents-to-be results as early as the 10th to 13th week of pregnancy**. The center is the nation's most experienced provider of chorionic villus sampling, performing about 2,000 of these procedures each year.

A new **barcode medication system** launched in 2011 adds another level of protection for Cedars-Sinai patients by providing further verification that the correct medication and dosage is being given. Upon admission, each patient now receives an ID wristband imprinted with a barcode.

Parents from all over the world bring their children to Cedars-Sinai's Pediatric Inflammatory Bowel Disease Center for diagnosis and treatment.

A leader in IBD research as well as clinical care, the center takes an individualized approach to treating this potentially life-threatening condition. The healthcare team includes physicians, nurses, researchers, nutritionists and social workers.

Surgeons at the Samuel Oschin Comprehensive Cancer Institute performed more cancer-related surgery than any other institution in Los Angeles County in 2010. The team has **expertise in the surgical treatment of both rare and common cancers**, and is highly skilled in minimally invasive, robotic and traditional open surgery. A multidisciplinary approach, including careful attention to pain management, is used to ensure the best possible outcome for cancer patients.

Dancers are highly trained athletes who suffer more than their share of foot, ankle and joint injuries. The Cedars-Sinai/USC School of Theatre Dance Medicine Center, one of only a few of its kind in the country, is a **unique collaborative effort focused on treating injuries as well as educating dancers about how to avoid movement-related injuries**. The center offers a multidisciplinary team of experts in dance and movement, sports medicine, orthopaedics, surgery and physical therapy.

In 2011, **Cedars-Sinai led U.S. medical centers in performing percutaneous aortic valve replacements and mitral valve repairs**. The Cedars-Sinai Heart Institute's program is one of the few nationwide with clinical trials in all three major heart valves that typically require surgical repair or replacement: the aortic, the mitral and the pulmonic valves.

Cedars-Sinai was honored by **The Joint Commission as a "top performer" in the areas of heart attack, heart failure, pneumonia and surgical care**. The award was given for "attaining and sustaining excellence in accountability measure performance" during the 2010 calendar year. Only 14 percent of Joint Commission-accredited hospitals that report core measure performance data earned the distinction of being named a top performer. Fewer than half of those hospitals received recognition in four of the different categories of key quality measures.

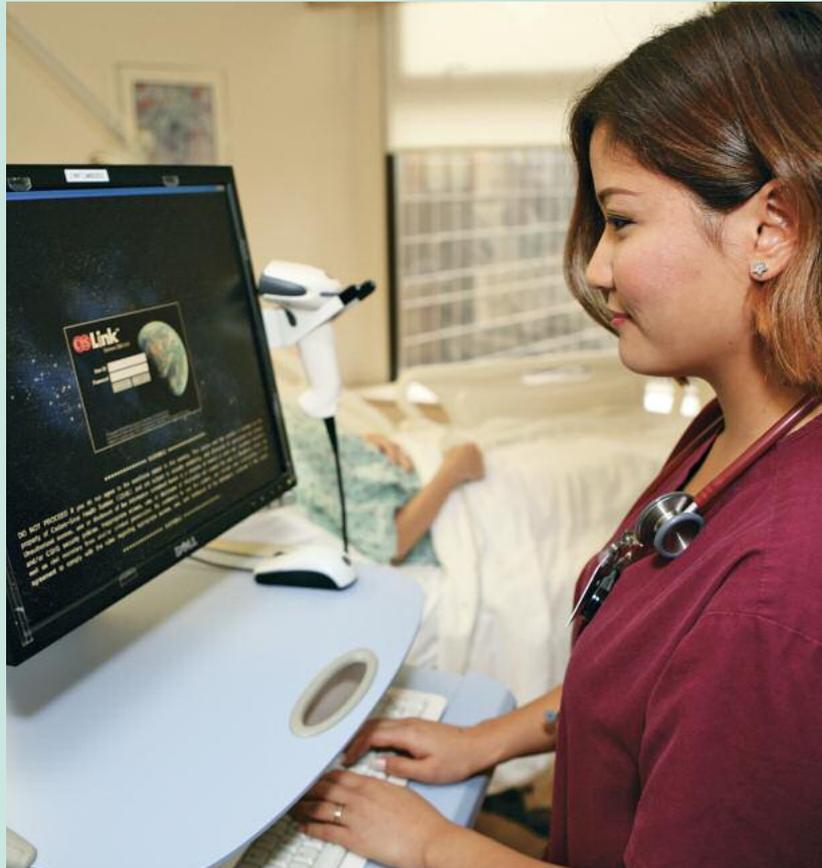
For families whose newborns spend their first days, weeks and even months of life in the Maxine Dunitz Children's Health Center Neonatal Intensive Care Unit, bringing home baby can pose some extra challenges. **NICU parents receive extra support in a special family suite** where nurses and physicians give them hands-on training in how to provide the care their infant will need at home. With the NICU staff nearby in case they have questions, parents have a chance to spend time alone with their baby in a suite that is equipped like a studio apartment, complete with a bed, full bathroom and other amenities.

The Cedars-Sinai one-year and three-year survival rates for liver transplant patients are well above the national rates and higher than expected given the level of illness of transplanted patients. According to the official federal government-contracted agency charged with tracking transplant outcomes in the United States, the most recent patient survival data puts Cedars-Sinai Liver Transplant Program patient survival at 92.63 percent at one year and 85 percent at three compared to national rates of 88.9 percent for one year and 79.68 percent for three.

The Cedars-Sinai Sinus Center is one of the busiest in Southern California in performing **balloon sinuplasties, a procedure used to treat chronic sinusitis**. The minimally invasive procedure employs a balloon to gently enlarge the sinuses. Surgeons insert the deflated balloon into the sinus cavity, then expand it carefully to stretch the tissue. This technique preserves more tissue and takes less time than conventional surgery, which involves chipping at the sinus cavity to enlarge it. Ear, nose and throat specialists at the center perform the procedure on adults and children.

The Blood and Marrow Transplant Program at the Samuel Oschin Comprehensive Cancer Institute is **one of only two programs in the country offering bloodless bone marrow transplants to Jehovah's Witnesses** with lymphoma, multiple myeloma and other blood cancers. Blood-conservation techniques, drugs that stimulate the patient's own blood growth and the transplant team's specialized care make it possible for physicians to modify the standard protocol—which includes blood transfusions—and still transplant these patients successfully, with results similar to those of traditional transplants.

Surgeons at Cedars-Sinai's Orthopaedic Center are **among the most experienced in diagnosing and treating a common hip condition** called femoroacetabular impingement (FAI), where the bones in the hip socket pinch nearby tissue, causing friction and damage to the cartilage. Smoothing the socket joint with minimally invasive surgery prevents further damage and slows the joint degeneration that often leads to the need for hip replacement.



ONE PATIENT, ONE RECORD

Cedars-Sinai moves closer to its goal of “One Patient, One Record” with the continued rollout of CS-Link™, a new electronic medical record system that is now being used in all inpatient nursing units. Upon its completed rollout, physicians and clinicians will have improved access to patient information across the continuum of care, ensuring smoother handoffs and improved decision-making.

“Our patients have already benefitted from the use of this technology in numerous ways, including our improved ability to monitor changes in patient condition,” says Vice President and Chief Nursing Officer Linda Burnes Bolton, DrPH, RN, FAAN.

The next phase of CS-Link launches in spring 2012 with computerized physician order management and documentation, and physicians are currently being trained to use the software. Cedars-Sinai also offers support to private physicians on its medical staff who want to install CS-Link in their offices.

For patients who use the Internet to help manage their own healthcare, Cedars-Sinai soon will launch a related program, My CS-Link. Patients can go online to a secure, password-protected website to review test results, get other information from their medical record, make appointments with their doctor, refill prescriptions and send secure messages to their physician without ever leaving their home or office.



A MAJOR MILESTONE FOR HEART TRANSPLANT PROGRAM

The Cedars-Sinai Heart Institute and Comprehensive Transplant Center performed the most adult heart transplants of any U.S. medical center in 2010.

Cedars-Sinai surgeons completed heart transplants on 75 patients and a heart and lung transplant on one patient, more than any of the 116 medical centers that performed adult heart transplants in 2010. The United Network for Organ Sharing, the nonprofit organization that manages the nation's transplant system, compiles the official statistics.

Since 1988, when the Heart Transplant Program was established, 652 patients have undergone heart transplantation.

“The generosity of organ donors as well as the dedication of our heart transplant team has fueled our program to reach this significant milestone,” says Eduardo Marbán, MD, PhD, Director of the Cedars-Sinai Heart Institute and the Mark S. Siegel Family Professor. “These patients are in need of the most advanced and innovative care, and we are pleased that our efforts make a difference to so many patients and their families.”

NEW LEASE ON LIFE: Among transplant patients who return to Cedars-Sinai for an annual picnic to celebrate their successful treatment are Doc Channon (left) and Marty Bender. Both have resumed active lives after receiving heart transplants.

Cedars-Sinai offers testing to patients with advanced melanoma to determine if a newly approved drug treatment will be effective for them. This is one of the latest tests offered by the Department of Pathology and Laboratory Medicine to analyze an individual patient's cancer for a specific genetic mutation. This information is then used to guide treatment, helping to ensure that patients receive the therapy that will be most effective for them.

The Pediatric Neurosurgery Program at Cedars-Sinai's Maxine Dunitz Children's Health Center has a specialized team of physicians with experience in surgical intervention to treat medical conditions associated with achondroplasia (the most common form of dwarfism). Among their major areas of expertise: surgical options to address spinal abnormalities that can lead to lack of mobility and add to the increased risk of health issues in adulthood. The team has contributed to research on new ways of evaluating children with achondroplasia.

Cedars-Sinai's Chaplaincy Program provides spiritual support and guidance to patients and families as they face the challenges of illness, making more than 30,000 visits in the past year. The Medical Center's chapel was recently renovated to better meet the needs of the many different faiths it serves, as well as to allow for classes, programs and special events.

More than 7,000 babies are born each year at Cedars-Sinai, which has specially designed private labor-delivery-recovery rooms with full-sized tubs for relaxation and comfortable birthing beds. The Medical Center also has a Maternal-Fetal Care Unit for pregnant women who need extended hospital care.

While most patients with high cholesterol levels can be treated through a combination of diet, exercise and medications, some who have dangerously high cholesterol levels do not respond to traditional therapies. Cedars-Sinai's **LDL apheresis program provides necessary treatment for patients who have no other alternative.** In this procedure, blood is continually removed through a patient's vein and sent through a machine that separates out the plasma. While the rest of the blood is passed back into the patient, the machine removes the low-density—or "bad" cholesterol—in the plasma. This can dramatically reduce LDL levels and help protect patients from heart attack and stroke.

Cedars-Sinai is one of only a handful of centers nationwide that offers an **incision-free procedure to address severe acid reflux disease.** The surgery treats the underlying anatomical cause of gastroesophageal reflux disease by repairing the body's natural barrier to reflux. During the procedure, known as transoral incisionless fundoplication, an endoscope outfitted with a tiny sewing machine is passed through the mouth to the stomach and is used to repair a weakened valve that is allowing stomach acid to pass into the esophagus, causing the disease and making the esophagus vulnerable to damage. This technique allows patients to recover more quickly, with less pain and swelling, compared to traditional or laparoscopic procedures.

A multidisciplinary team provides expertise to physicians around the globe through a monthly **international teleconference on fetal neurology** cases. Cedars-Sinai experts in pediatric neurosurgery, pediatrics, pediatric neurology, maternal-fetal medicine, genetics and medical imaging confer with doctors from Austria, Brazil, Canada, Chile, England, France, Germany, Israel, Italy and Switzerland. Together, they review complex cases and compile recommendations for other physicians in the field on a range of issues, such as defining what constitutes proper fetal development or what tests to conduct when a developing baby appears to have a brain malformation.



A PLACE TO CALL HOME

Imagine going to see your primary care physician and having your care handled by an entire team of onsite healthcare professionals—a medical assistant, patient service representative, pharmacist, dietitian, nurse case manager, social worker and more. Sound too good to be true? Cedars-Sinai Medical Group launched its "Medical Home" concept in January 2011 to provide patients with just this type of comprehensive service.

Patients receive the benefit of expertise from a diverse group of specialists who focus not only on treatment, but also on illness prevention and improved care for chronic conditions. "Our goal is to simplify our patients' access to quality healthcare, enhance their level of satisfaction and ultimately improve their health," says Grace Carangal, MD, a Medical Group internist.

The Medical Home pilot project began with 11 physicians and will roll out to the rest of the Medical Group's primary care offices in 2012. "We've already seen increased patient and physician satisfaction, and we will continue to make refinements based on their feedback," says Stephen C. Deutsch, MD, Chief Medical Officer of the Medical Delivery Network.

Men undergoing radiation therapy for prostate cancer benefit from a range of advanced technologies at the Samuel Oschin Comprehensive Cancer Institute. One, a GPS-like monitoring system called Calypso, uses miniature implanted transponders to track prostate cancer in real time, providing precise, continuous information on the location of the tumor. This allows for greater accuracy in the delivery of radiation to the cancer while minimizing potential damage to healthy tissue. The system is currently being studied for body-wide applications.

Cedars-Sinai was the first medical center to offer genetic screenings for four common inherited disorders within the Persian Jewish population. The screenings, provided through the Medical Genetics Institute and Department of Pathology and Laboratory Medicine, have been conducted in synagogues and other community centers, testing for an anesthesia sensitivity, a salt-losing disorder, a multiple hormone deficiency and a hereditary muscle disorder. The disorders are avoidable or preventable if patients know they have them or carry the genes for them, and the screenings require only a saliva sample.

At the Cedars-Sinai Weight Loss Center, patients are evaluated by a multidisciplinary team that recognizes **obesity as a complex, chronic disease that doesn't have a one-size-fits-all solution.** The team develops an individualized plan for long-term weight loss, considering both medical and surgical options. Surgical patients receive support before and after the procedure from a team including their surgeon, an internist, registered dietitians and mental health professionals who assist them with the lifestyle changes necessary for sustainable weight loss. The center also offers classes and support groups.

Cedars-Sinai physicians perform hysterectomies laparoscopically at more than double the national average. The Cedars-Sinai Center for Minimally Invasive Gynecological Surgery is **one of only a few centers that offer laparoscopic options for hysterectomy** and for the removal of fibroids. These options, which rely on only a few small incisions, allow for shorter hospital stays, less pain and faster recovery times.

Cedars-Sinai has earned the rare distinction of being **accredited by the College of American Pathologists for more than four decades.** This demonstrates that the Medical Center meets the highest standards for all laboratory tests, which ultimately influence the care of nearly every patient.

The tiniest patients are often the most vulnerable. Cedars-Sinai's **neonatal transport team** travels to neighboring hospitals to safely transfer critically ill infants to the Cedars-Sinai Maxine Dunitz Children's Health Center Neonatal Intensive Care Unit for specialized care. The transport team, which can reach the referring hospital in as little as 20 minutes, consists of neonatal doctors, nurses, hospitalists and respiratory therapists.

Among the Medical Center's many quality and safety projects is "Code Sepsis," launched in September 2011 as part of the Cedars-Sinai Medicine initiative to help ensure rapid response to sepsis cases. Studies show that one of the most effective treatments for sepsis is the administration of antibiotics within one hour of recognizing the condition. Calling Code Sepsis triggers quick action; when sepsis is suspected, cultures are drawn and if antibiotics are needed, the RN immediately pages the unit pharmacist to expedite the order in one hour or less.

Under the umbrella of the comprehensive Cedars-Sinai Medicine initiative, the Medical Center has begun rolling out the Crimson software system to the medical staff. Crimson is **an educational tool that provides clinical performance information to physicians,** allowing them to examine data from their own medical practice and to compare themselves with others in their specialty. This gives physicians access to the types of data that already are available to outside sources such as insurance payers and Medicare—information about their clinical practice that will help them provide the best patient care.

Many patients waiting for a lifesaving liver transplant benefit from having support and understanding from others in the same situation, but they may not be strong enough to attend the Cedars-Sinai Comprehensive Transplant Center's weekly support group meeting—or may live too far away. The solution: **creating an online community for about 150 Cedars-Sinai liver transplant patients.** The completely confidential virtual support group allows those waiting for a liver transplant to email other patients on the waiting list. When someone in the group reads their message, they can respond either to the individual who wrote the email or to the whole group.

Using the latest microsurgery techniques, **expert reconstructive surgeons at the Plastic and Reconstructive Surgery Center** tend to the needs of patients suffering from problems resulting from trauma, cancer, infections or birth defects. These innovative and highly skilled surgeons repair many kinds of disfigurements to improve quality of life for adults and children. They work closely with patients' oncologists, neurosurgeons and many other specialists at Cedars-Sinai.



REBUILDING BODY AND SOUL AFTER CANCER

“Survivorship is really just the next phase of a cancer survivor’s journey,” says Arash Asher, MD, Director of the Cancer Survivorship and Rehabilitation Program at Cedars-Sinai’s Samuel Oschin Comprehensive Cancer Institute.

With advances in technology and drug therapies, 12 million or so patients have survived a cancer diagnosis in the United States. But once the cancer has been defeated, patients must rebuild themselves—physically and emotionally. One of the newest offerings at Cedars-Sinai helps them do just that.

The cancer exercise and rehabilitation program employs specially trained, certified physical therapists who tailor exercise plans and work individually with cancer survivors to improve fitness, balance and cardiovascular health. Participants, closely monitored through a three-month, three-times-a-week program, report an increase in strength, endurance and confidence. To date, about 20 patients at Cedars-Sinai have participated in the program, one of the first of its kind in the country.

“The program does more than strengthen after-cancer bodies. It empowers the participants in every aspect of their lives,” Dr. Asher says.



Research

Harnessing cardiac stem cells to heal damaged hearts. Breaking through the blood-brain barrier to deliver anti-cancer drugs to brain tumors. Discovering the potential of an existing antibiotic to be the first long-lasting treatment for irritable bowel syndrome. **This is the kind of research that makes Cedars-Sinai an international leader in advancing medical science.** Innovative biomedical research by the Medical Center's renowned scientists gives patients access to the latest treatments while contributing to medical progress across the entire spectrum of disease. More than 1,000 projects—encompassing basic, translational, clinical and health services research—are now under way at Cedars-Sinai, a leader in the study of heart disease, cancer and neuroscience, among other fields. Cedars-Sinai is ranked in the top tier of independent hospitals nationwide that receive competitive research funding from the National Institutes of Health.

Research led by a physician-scientist at the Samuel Oschin Comprehensive Cancer Institute's Saul and Joyce Brandman Breast Center—A Project of Women's Guild has **revolutionized the way surgeons treat breast cancer** that has spread to the lymph nodes. Contrary to what surgeons previously believed, removing the lymph nodes during breast cancer surgery does not improve survival rates of women diagnosed with early-stage breast cancer, according to a study published in the *Journal of the American Medical Association*. Sparing the lymph nodes allows for a less-invasive surgery, saving women from the pain and side effects of comprehensive lymph node removal and improving quality of life after breast cancer surgery.

The **largest clinical trial of “brain cooling,” or therapeutic hypothermia, after stroke** is now under way, led by researchers in Cedars-Sinai's Department of Neurology and colleagues at other leading stroke centers. The trial studies the effects of hypothermia—the rapid, controlled cooling of body temperature to reduce neurological deficits—in elderly patients suffering strokes. It will enroll 400 patients at up to 26 sites in the United States and Europe and is sponsored by the National Institute of Neurological Disorders and Stroke at the National Institutes of Health.

Already recognized nationally for its efforts to reduce the incidence of hospital-acquired infections, Cedars-Sinai published **research showing that painless and gentle probing of a wound with a dry cotton swab dramatically reduced infections** in post-operative appendectomy incision sites. Only 3 percent of patients who had the daily probings contracted infections, compared to 19 percent of those who didn't—a rate more than six times higher than the study group. The wound-probing technique is now used by a number of specialists at Cedars-Sinai.

A Cedars-Sinai Heart Institute study shows that **if hypertension intervention programs were put in place in the estimated 18,000 African American barbershops nationwide**, it would result in about 800 fewer heart attacks, 550 fewer strokes and 900 fewer deaths in the first year alone. African American men in the United States have the highest death rate from hypertension of any race, ethnic and gender group—three times higher than white men.

Pioneering scientists at the Samuel Oschin Comprehensive Cancer Institute are conducting **research focused on the cancer cell and its microenvironment—the surrounding cells that interact with the tumor and can promote its growth.** Understanding how cancerous cells communicate with non-cancerous cells around them may lead to new therapeutic approaches that target the cancer cells and prevent the microenvironment from encouraging the cancer to spread.

A team of Regenerative Medicine Institute physicians and scientists has been awarded a planning grant from the California Institute for Regenerative Medicine to bring together a “Disease Team” focused on **biological treatments for the most common types of bone fracture in osteoporosis patients.** The aim of the funding is to design a project that will perform all necessary animal studies required to submit a proposal to the federal government to perform studies in man. Vertebral compression fractures account for approximately 700,000 injuries in the United States each year—twice as many as hip fractures. Currently, the only medical interventions available involve injection of synthetic, nonbiological material that does not absorb into tissues and remains a permanent foreign body fixture in the spine.

Cedars-Sinai's Biomedical Imaging Research Institute—the only one of its kind in the United States—houses all the **state-of-the-art imaging equipment** needed to follow a clinical trial from start to finish, and allows translation of animal research results to human subjects. Knowledge derived from imaging plays a critical role in the diagnosis, treatment and prevention of various diseases.

RESEARCH

Movement Disorders Program researchers served in **leadership roles on two task forces that brought together international experts on deep brain stimulation**, which involves the implantation and programming of electrodes to modulate muscle-controlling nerve signals. One task force was commissioned by the Movement Disorder Society to provide insight and guidance on treatment for dystonia, an uncommon yet potentially crippling disorder. The other, convened by the Parkinson Alliance, focused on deep brain stimulation for Parkinson's disease.

Researchers at the Samuel Oschin Comprehensive Cancer Institute are **testing a new class of drugs targeting the underlying genetic disruption of cancer cells**. Part of an international consortium of research centers that showed this new type of drug can reduce the size of tumors in women with advanced hereditary ovarian or breast cancer, Cedars-Sinai is one of a handful of places in the country with a current clinical trial on the drug, which works by inhibiting the DNA repair mechanism of cancer cells, ultimately causing their death.

Heart disease kills more women than all cancers combined. Research led by the Women's Heart Center at the Cedars-Sinai Heart Institute shows **women suffer from specific heart problems that have been overlooked by traditional cardiac research**. With funding from the National Institutes of Health, Cedars-Sinai researchers are leading the study of gender differences in heart disease and developing strategies to prevent, diagnose and treat heart disease in women.

Cedars-Sinai has received its third consecutive **full accreditation from the Association for the Accreditation of Human Research Protection Programs Inc.**, whose goal is to ensure that research institutions meet the highest standards in respecting and protecting individuals who participate in research. To earn accreditation, organizations go through a rigorous review process and must demonstrate tangible evidence—through policies, procedures and practices—of their commitment to scientifically and ethically safe and sound research, and to continuous improvement.

Nationwide, less than 5 percent of patients who have a sudden cardiac arrest survive. Cedars-Sinai researchers are **developing a measurement system that could help physicians everywhere predict which patients are susceptible to this heart rhythm disturbance**. This novel personalized system for prediction of sudden cardiac arrest is being developed by combining patients' tests with their genetic profile.

Cedars-Sinai nurses continually strive to find innovative ways to improve care and patient outcomes through research. The **Medical Center's annual Nursing Research Conference** highlights these efforts, especially those that have resulted in better practices. This year's conference focused on more than 30 research projects addressing a range of issues, including the best way to conduct breast cancer risk assessments for Spanish-speaking patients and the latest techniques to further patient safety.

The Department of Surgery is leading a national initiative, funded by a \$4 million grant from the U.S. Department of Defense, to develop **new approaches and procedures to optimize teamwork and technology in operating rooms**. The initiative will ultimately cull expertise from engineers, surgeons and technology experts from around the country.

High doses of antioxidant nutritional supplements, such as **vitamins C and E, can increase genetic abnormalities in cells, which may predispose supplement-takers to developing cancer**, according to a Cedars-Sinai Heart Institute study. The research team serendipitously discovered the danger of excessive antioxidant doses while seeking a way to reduce the genetic abnormalities that occurred naturally when multiplying human cardiac stem cells in a Petri dish.

A drug developed at Cedars-Sinai's Maxine Dunitz Neurosurgical Institute to **carry cancer-fighting agents into brain tumors** continues to advance toward clinical trials—for brain and breast cancer. Unlike other drugs that attack cancer cells from outside and often injure normal cells, this therapy consists of multiple drugs chemically bonded to a "transport vehicle." The drugs bypass healthy cells, accumulate inside tumor cells and attack the molecular mechanisms that enable cancer cells to grow and spread.

Cedars-Sinai is a **major research site investigating new treatments for hepatitis C**, the leading cause of liver cancer and cirrhosis and the primary condition that leads to liver transplants in the United States. Hepatitis C has been a chronic, destructive and difficult-to-manage disease, but breakthroughs in antiviral drugs have nearly doubled the number of patients who can achieve a sustained response and essentially be cured. Cedars-Sinai is involved in the development of most of the new compounds to treat hepatitis, including two antiviral drugs recently approved for this purpose by the Food and Drug Administration.

Research on the latest version of the **dendritic cell vaccine that fights aggressive brain tumors** finds patients living longer. With standard treatments, patients with newly diagnosed glioblastoma multiforme typically live only 12 to 15 months. But at the four-year point of a Phase I clinical trial focusing on the safety of the immunotherapy created at the Maxine Dunitz Neurosurgical Institute, eight of 16 patients had a median overall survival of 38.4 months. Six patients continued to show no tumor recurrence. Three of these had survived more than four years. Median progression-free survival (the time from treatment until the time of recurrence) was 16.9 months. Patients now are being enrolled in a multicenter, randomized, placebo-controlled Phase II trial.

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Advancing the understanding and treatment of women's cancers and of cancers that affect women differently than men is the focus of the Women's Cancer Program at Cedars-Sinai's Samuel Oschin Comprehensive Cancer Institute. The program's clinical scientists conduct cross-disciplinary basic, translational and clinical research, and its physicians offer women the most advanced cancer treatments. The program's biorepository, which holds close to 100,000 specimens, provides valuable samples and clinical data used by researchers throughout the world to better understand causes of cancer, identify growth pathways and improve methods of detecting cancers at earlier stages.

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Researchers are **looking into whether a combination of gene therapy and stem cells could alleviate damage to corneas that can lead to vision loss**, particularly in patients with diabetes. Cedars-Sinai scientists recently showed that diabetics' corneal stem cells become abnormal and may stop producing certain proteins that enable normal functioning.



EXPANDING THE POTENTIAL OF STEM CELL SCIENCE

Dedicated to advancing one of the most promising medical frontiers, the Cedars-Sinai Regenerative Medicine Institute brings scientists and physicians together to translate stem cell science into potential leading-edge treatments for diseases and genetic disorders, including spinal muscular atrophy, heart disease, diabetes, amyotrophic lateral sclerosis, vertebral compression fractures and Alzheimer's.

In late 2011, the Institute opened a new Induced Pluripotent Stem Cell (iPSC) Core Facility capable of producing iPS cells from adult human fibroblasts or other tissue samples. To produce a line of iPS cells, clinicians can take skin cells from patients with specific life-threatening medical conditions. Then, Institute scientists can create "disease-in-a-dish" models that enable them to more easily identify effective therapies.

"The theory is that if we can put a disease in a Petri dish, we can treat it in the laboratory without needing human participants," says Clive Svendsen, PhD, Director of the Institute. "We can also test novel drugs on the patients' own cells to check for potential side effects."

CREATING "DISEASE-IN-A-DISH" MODELS: Brandon Shelley, a scientist at Cedars-Sinai's Regenerative Medicine Institute, cultivates stem cells in a sterile environment as part of research that could lead to new treatments for diseases and genetic disorders.



A TAIL-WAGGING SURGICAL ADVANCEMENT

Some of man's best friends are wagging their tails—literally—thanks to human research on a new type of surgical imaging device being pioneered at Cedars-Sinai.

Adam Mamelak, MD, a neurosurgeon who co-directs the Cedars-Sinai Pituitary Center, had been studying the use of a scope called VITOM™ for human surgery when he was approached by a group of veterinary surgeons interested in learning how to perform a similar procedure in dogs with Cushing's disease.

While this disease is rare in humans, it's common in dogs—and usually fatal. Because the pituitary is

small and deeply lodged in the brain, tumors are not usually removed in veterinary medicine. But the surgical scope used by Dr. Mamelak happens to be a nearly perfect fit for dogs.

He adjusted the minimally invasive procedure for a dog's anatomy—and it worked, making it possible for a number of dogs that would have died of canine Cushing's disease to return to normal life.

It turns out this advance in veterinary medicine benefits humans as well as canines. "The tumor tissue removed from dogs carries information that's hard to come by because Cushing's disease is so rare in humans," Dr. Mamelak says. "Studying these specimens will help us identify drugs that may prove to be effective treatments for our patients."

Cedars-Sinai is working with The Joint Commission's Center for Transforming Healthcare as **part of a national collaboration to reduce surgical site infections** after colorectal surgical procedures. A yearlong study at Cedars-Sinai gathered data on surgical site infections for all inpatient colorectal surgeries at the Medical Center. This information is now being used to recommend changes in practice to help prevent these infections.

Department of Neurology researchers created a new molecule from curcumin, a chemical component of the spice turmeric, and found that it **protects and helps regenerate brain cells after stroke**. The molecule, CNB-001, repairs four major pathways. One mechanism also plays a role in the growth and survival of neurons. In laboratory studies, the drug reduced stroke-caused "motor deficits"—problems of muscle and movement control.

The Cedars-Sinai Spine Center is one of **the most active in the country in performing clinical trials for new types of artificial discs**. Clinical scientists at the center recently published research that shows some artificial disc replacement procedures are as effective as traditional surgery, providing less-invasive alternatives that reduce pain and recovery time for patients. They are also conducting laboratory research focusing on bone regrowth and spinal regeneration.

Scientists at Cedars-Sinai are **developing a computer program that will test whether pharmaceutical compounds stimulate protein development in motor neurons**. This could be the first step toward discovering a treatment or cure for spinal muscular atrophy, a neuromuscular condition that is one of the most common lethal genetic diseases in children.

Short-term hormone therapy given in combination with radiation therapy **increases the chance of men living longer with early-stage prostate cancer**. Researchers at the Samuel Oschin Comprehensive Cancer Institute contributed to this national study published in the *New England Journal of Medicine*.

A groundbreaking antibiotic therapy developed at Cedars-Sinai is the **first potential drug treatment to provide irritable bowel syndrome patients with long-lasting relief** of their symptoms. Unlike traditional therapies for the condition, which have focused on relieving symptoms, patients who took rifaximin reported relief from bloating, less abdominal pain and improved stool consistency for up to 10 weeks after stopping treatment with the medication. Rifaximin is a minimally absorbed antibiotic that stays in the gut. While the concept of bacteria playing a key role in this condition was controversial when first unveiled a decade ago, this research confirms that bacteria in the gut, also known as "gut flora," trigger the symptoms of this chronic condition affecting an estimated 30 million people in the United States.

A common, tiny tropical fish plays a key role in a new model for Cushing's disease, giving researchers a powerful tool to conduct extensive searches for effective treatments for this serious hormonal disorder—testing up to 300 drugs weekly. Cedars-Sinai researchers introduced into striped zebrafish the pituitary tumor-transforming gene, which caused the fish to develop features of Cushing's disease, such as high levels of cortisol, diabetes and heart disease. These fish allow researchers to visualize how drugs interact with the tumors. Currently, there are no approved drugs that effectively target the disease. Surgery is often not an option because of the tiny size of the tumors, leaving few options for treatment.

The Cedars-Sinai Research Biobank, a central biorepository of blood and tissue specimens, **provides a resource for translational science that is generating new avenues for personalized treatments**. The tissues in the biobank—catalogued in a database that includes clinical, demographic and follow-up data—can be used by researchers and clinicians to determine how the same disease can take a markedly different course in different individuals. Biological samples collected from multiple sites in the community, as well as at the Medical Center and clinics, enhance the diversity of ethnicity and age. Samples are provided by informed patients and volunteers to support the advancement of medical research.

Two innovations that originated at the Maxine Dunitz Neurosurgical Institute have entered clinical trials. As Cedars-Sinai researchers discovered, **amyloid plaques associated with Alzheimer's disease build up in the retina of the eye**—and show up there earlier than in the brain. Now, based on the success of earlier preclinical studies, a clinical trial is under way to determine if an optical imaging device can detect plaque in retinas to diagnose Alzheimer's disease in the early stages when therapies may slow progression and improve quality of life. The other clinical trial focuses on opening the blood-brain barrier to deliver an anti-cancer drug to brain tumors. The trial involves a drug typically prescribed for erectile dysfunction. In preclinical studies, vardenafil (Levitra®) opened the blood-brain barrier and boosted the effectiveness of chemotherapy.



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Community Outreach

A commitment to meeting the community's health needs has been a defining quality of Cedars-Sinai since the beginning—from the opening of the 12-bed Kaspary Cohn Hospital in Angeleno Heights in 1902 to what is now a world-renowned, 1,000-bed nonprofit academic medical center. Cedars-Sinai's Community Benefit contribution, which totaled \$600.6 million in FY11, supports a broad spectrum of initiatives to give those in greatest need access to health information, screenings and care. The Medical Center offers free and part-pay hospital care to those who qualify for financial assistance, as well as hundreds of free health education programs and services such as immunizations and health screenings at community sites around Los Angeles. Cedars-Sinai also conducts biomedical research that benefits countless individuals, locally and around the world, and provides education to prepare the next generation of healthcare professionals.

Each year, Cedars-Sinai's **Youth Education and Development (YED)** program provides job training and mentoring for 45 at-risk juniors and seniors from Fairfax High School who are interested in healthcare careers. Many YED participants come from disadvantaged homes, but nearly all go to college. Many continue to work at Cedars-Sinai during their college years, and a number have been hired by the Medical Center upon graduation. In partnership with the Los Angeles Unified School District and Fairfax High School, the YED program allows participants to earn 10 high school credits while gaining experience in the healthcare field. A total of more than 400 students have participated in the program, and 75 percent of them have pursued careers in healthcare.

Cedars-Sinai is the **only private, nonprofit hospital in Los Angeles County with a Level I Trauma Center and one of only four such centers in this region**. The Medical Center, which has earned the highest credentials from the American College of Surgeons Committee on Trauma, treats about 1,500 trauma patients a year. The most common injuries result from motor vehicle crashes, pedestrians hit by vehicles, and falls. The Trauma Program's comprehensive approach includes every aspect of treatment, from care in the Emergency Department to surgical critical care and rehabilitation. The program also offers education that promotes safety for children, discourages teens from drinking and driving, and helps older people prevent falls.

As part of a strategic effort to combat childhood obesity, Cedars-Sinai is **helping children and families learn about healthy eating and physical activity through Healthy Habits programs** that reach elementary school students, eighth-graders, parents of preschool children and families in underserved communities including Mid-City, Koreatown and Hollywood. And it's working. Surveys completed by parents at the end of the 10-week Healthy Habits classroom program showed that 82 percent of the second-graders are eating more fruit, 72 percent are consuming more vegetables, and 68 percent are exercising more. In FY11, the program was offered in 47 elementary school classrooms, reaching 1,059 students.

Cedars-Sinai's low-cost, home-based **Lifeline medical assistance** program now has 1,650 subscribers. The program gives seniors living alone the reassurance that they can get help quickly in a medical crisis such as a heart attack, stroke or fall.

The **Psychological Trauma Center** provides art therapy, crisis intervention and counseling services to troubled students at 25 schools throughout Los Angeles. Counselors from the center helped 10,322 children in FY11, primarily through group sessions. The center's 12-week Share and Care art therapy program provides a supportive and creative environment for at-risk children who are victims of trauma. Through their drawings, children express feelings they may not be able to talk about, which aids in healing and enhances their ability to concentrate and learn.

Cedars-Sinai's **COACH for Kids and Their Families®**, which sends mobile medical units to underserved neighborhoods of Los Angeles, encouraged more than 600 students and their parents to join in the fight against childhood obesity by presenting the "Think Healthy! Community Nutrition & Health Fair" at Watts' 112th Street Elementary School. The fair was just one of many ways that COACH for Kids and Their Families, a program of the Cedars-Sinai Maxine Dunitz Children's Health Center, brings free healthcare services to children each year at public schools, homeless shelters and community centers throughout Los Angeles.

Every year, more than 10,000 teens reach out to Cedars-Sinai's **TEEN LINE peer counseling** hotline, which helps them cope with trauma and stress. The TEEN LINE website receives more than 140,000 visits a year from around the world, and the program's new text message program is widely used by troubled teens. The program also connects with young people through presentations at schools and other community sites, and through workshops that address such issues as teen suicide, tolerance and growing up gay.



WELLNESS SERVICES WORTH WAITING FOR

Irene Sierra and her husband are inside the Los Angeles Convention Center, standing patiently in a long line for something they've been looking forward to all year—a free diabetes and cholesterol screening from Cedars-Sinai medical experts. “This is a good opportunity for me,” Irene says. “My main concern is high cholesterol. Cedars-Sinai has good doctors, a good hospital. It’s worth the wait.”

Many of the estimated 35,000 people attending the annual Telemundo 52 Salud & Bienestar (Health and Wellness) Expo at the Los Angeles Convention Center on March 13, 2011, lined up to receive free health services from the team of 170 Cedars-Sinai physicians, nurses and other healthcare professionals who



provided medical screenings, flu shots, nutrition counseling, risk assessment for breast cancer, yoga exercises and more.

“Cedars-Sinai’s team contribution to this year’s Health Expo made a significant difference, attracting a larger crowd,” says Victor Franco, Vice President of Community Relations for Telemundo. “We couldn’t be more pleased with our partnership, especially with the expertise of the Cedars-Sinai team.”

Medical treatments that require support from blood transfusions rely heavily on community donations of blood products. In a city the size of Los Angeles, these supplies are always in danger of running low. Thanks to **Cedars-Sinai’s community blood collection program**, which sends mobile units to many sites around Los Angeles on a regular basis to make blood donation more convenient, donations for a variety of blood products for surgeries, transplants and other life-saving treatments at the Medical Center have increased.

Physicians, nurses, dietitians and other Cedars-Sinai healthcare professionals moderated the popular **Community Health Education Lecture Series**, which reached more than 2,000 participants at seven locations throughout Los Angeles in FY11. Lectures and discussions covered a wide range of topics, including diabetes and weight management, stroke prevention, fall prevention and personal safety, nutrition and psychological issues. Cedars-Sinai also partnered with KJLH “Free Talk” radio to sponsor a special broadcast and community mental health symposium in South Los Angeles that addressed critical mental health issues in the African American community. More than 300 people attended the symposium.

As part of their training, **Cedars-Sinai medical residents provide healthcare services at free clinics around Los Angeles**, increasing the capacity of these clinics to help the poor and the underserved. Residents volunteer at the Mission Clinic, which serves the homeless on Skid Row in downtown Los Angeles, and at The Saban Free Clinic (formerly the Los Angeles Free Clinic), Clínica Oscar Romero and the Venice Family Clinic, among other community sites. Many continue to serve vulnerable populations after completing their residency and starting their own practice.

More than 2,000 volunteers donate a total of approximately 200,000 hours to Cedars-Sinai every year, providing invaluable assistance in some 400 different assignments throughout the Medical Center. In FY11, volunteers spent 3,000 hours visiting with patients and their families. Volunteers also donated 17,000 hours in the Emergency Department, 5,000 hours helping heart transplant patients and their families, 17,000 hours assisting at the Helping Hand Gift Shop and at information desks, and 1,200 hours as musicians and vocalists in the Music for Healing program. Four-legged volunteers (and their devoted owners) in the POOCH (Pets Offer Ongoing Care and Healing) program logged 1,000 hours in visits on medical floors throughout the hospital, lifting the spirits of patients, family members and staff.

The population Cedars-Sinai serves is so diverse that **the Medical Center receives approximately 6,500 requests for language translation each month.** The Interpreter Services department bridges language barriers to ensure clear communication between patients and healthcare professionals. Nearly 550 interpreters are on hand to translate as many as 45 different languages, including Farsi, Spanish, Korean and Russian.

The **Breast Cancer Educational Forum** delivered an upbeat message to women: *breast cancer does not have to define you.* Co-sponsored by Cedars-Sinai, the City of West Hollywood and the National Council of Jewish Women, the event featured Cedars-Sinai physicians and other expert panelists talking about the latest research, treatment, recommendations for recovery and more. The annual forum is part of the Medical Center's extensive breast cancer education and screening program.

About 80 students from Hollywood, Fairfax and Hamilton high schools attended Cedars-Sinai's annual **Nursing Career Luncheon**, designed to provide an inside look at the complex field of nursing. The event included a series of talks by Cedars-Sinai nurses who introduced students to the breadth of career opportunities in this field, as well as tours led by nurses who provided a behind-the-scenes view of the hospital.

Employees from Cedars-Sinai participated in a number of community immunization clinics, **providing 925 free flu and pneumococcal vaccines to vulnerable populations across Los Angeles** in FY11. The clinics were held at nine different locations, including the Second AME Church, Park La Brea, Temple Beth Am, the 88th Street Temple and the People Coordinated Services Senior Multipurpose Center in the Crenshaw area.



ALLEN J. SCHABEN/LOS ANGELES TIMES

SMARTER SHOPPING, BETTER HEALTH

In South Los Angeles, 24 women at a Ralphs supermarket take notes, intent on learning how to read food labels, make healthy choices and shop smarter on a budget.

While the group examines cereal boxes, Cedars-Sinai health educator Heather Mason talks about how to find the most nutritious options, such as oatmeal: "Look for at least five grams of fiber, and less than five grams of sugar." Heads nod. Boxes that don't pass the test are placed back on the shelves.

In another aisle, a participant is stunned by the amount of fat and sodium in pasta sauce. "You have to change the way you do things," she says.

Several times a year, in partnership with the Los Angeles Urban League, Cedars-Sinai offers a grocery shopping course that includes two classroom sessions and two supermarket tours. This is one of many ways Cedars-Sinai is working to combat obesity and support the Urban League's Neighborhoods@Work Initiative, a multifaceted effort to improve quality of life in the Park Mesa Heights Community in the Crenshaw area.

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Education

More than 480 physicians-in-training are enrolled in **Cedars-Sinai's highly competitive medical residency and fellowship programs**. The Medical Center provides extensive training in more than 80 specialty and subspecialty areas. Residency programs include anesthesiology, pediatrics with medical genetics, dentistry, diagnostic radiology, internal medicine, medical genetics, neurological surgery, obstetrics and gynecology, pathology and laboratory medicine, podiatric surgery, psychiatry, general surgery and thoracic surgery. Cedars-Sinai welcomed 96 new residents and 79 new fellows in summer 2011.

Cedars-Sinai's PhD program in Biomedical Sciences and Translational Medicine enrolled its fourth class of students in September 2011. The program **merges scientific and translational medicine curricula with mentoring by both researchers and clinicians**, and also offers broad exposure to clinical medicine. It is designed to prepare students for successful careers by training them as well-rounded scientists with a strong foundation of knowledge in research design, methodology and presentation, as well as the skills needed to compete for research funding. The inaugural class will graduate in 2012.

The **Internal Medicine Residency Training Program** at Cedars-Sinai is the third largest in the state with 139 residents participating in the 2011-12 academic year. During the three-year program, medical school graduates undertake clinical training in various inpatient and outpatient settings. A series of lectures and conferences is also an essential component of their educational experience.

Cedars-Sinai's Orthopaedic Center, one of the top centers of its kind in the country, is **adding a five-year Orthopaedic Residency Program** designed to provide a combination of education and clinical and research experience. The goal of the program is to develop medical residents into highly skilled orthopaedic surgeons and compassionate physicians.

While healthcare experts nationally call for increased training for nurses, Cedars-Sinai has been offering opportunities for nurses to hone and advance their skills and earn academic degrees and specialty certifications. Support from colleagues and the Medical Center through the **Geri and Richard Brawerman Nursing Institute plays a key role in expanding educational opportunities that ultimately result in better patient care**. In addition to RN degrees, more than 73 percent of the 2,800 nurses at Cedars-Sinai hold baccalaureate degrees, and 13 percent hold advanced nursing degrees at the master's or doctorate level. The Brawerman Nursing Institute, founded in 2002, has played a key role in assisting nurses in pursuing their education, providing financial assistance as well as free educational programs to more than 1,100 nurses.

The Accreditation Council for Graduate Medical Education (ACGME) awarded Cedars-Sinai a five-year residency program for prospective urologists. Nationally recognized urologists at the Medical Center will take a leadership role in **preparing future urologists for careers in academic and clinical urology** in the areas of stone disease, urologic oncology, reconstruction, pediatric urology and infertility.

Cedars-Sinai's Department of Pathology and Laboratory Medicine offers **one of only a handful of accredited clinical cytogenetics training sites in California**.

Cytogenetics is used to detect chromosome abnormalities responsible for birth defects and developmental problems. It's also used to make a diagnosis or prognosis and to follow the course of various leukemias and other cancers. The Clinical Cytogeneticist Scientist Licensure Program is fully accredited by the National Accrediting Agency for Clinical Laboratory Services, and prepares individuals for board examination and state certification.

As part of a commitment to attract, motivate and support the next generation of scientists, the Department of Neurosurgery added another educational program to its schedule, holding its **first stem cell conference for California high school students**. Students also were invited to compete for three essay awards. The prize: \$500 and a chance to spend a summer volunteering in a Cedars-Sinai laboratory, learning with stem cell neuroscientists. The department's educational outreach now spans elementary school through specialty training for doctors, including: Brainworks for seventh- and eighth-grade students; the stem cell conference for high school students; the Pauletta and Denzel Washington Family Gifted Scholars Program in Neuroscience for undergraduate and graduate students; and the Neurosurgical Residency Program.



A 'COOL' WAY TO CAPTIVATE TOMORROW'S SCIENTISTS

Will it be the sheep's brain? The phantom skull and virtual surgery? The life-size spine and surgical tools? What will grab a child's attention and sow the seed of imagination that just might grow into world-changing reality?

Brainworks is all about "cool," "awesome" and "wow!" Debuting in 1998 and sponsored by the Department of Neurosurgery and the Maxine Dunitz Neurosurgical Institute, the annual daylong program for seventh- and eighth-grade students puts real technology and science into the hands and minds of about 140 potential scientists, doctors, nurses and other healthcare workers.

Microscope slides of brain tumor cells, brain-teasing games and one-on-one visits with canine pet therapists are among the experiences that are part of an event designed to get students thinking, "I can do this. I want to know more." Or as one participant said, "The activity that I liked the most was when we could do surgery on the fake head with the jelly stuff inside like it was a brain. That was cool. I learned a lot that day."

The Medical Student Volunteer Program at Cedars-Sinai is designed for college students who are applying to medical schools. During the course of their yearlong "mini-residency," the **volunteers rotate through more than 20 different medical specialties**, including oncology, anesthesiology, transplantation and psychiatry. Few medical centers offer such an opportunity to students, who say their experiences have shaped their career decisions.

The Cedars-Sinai Postdoc Society is a **group of postdoctoral scientists and junior researchers that encourages collaboration**. The society hosts a monthly gathering featuring postdoc presentations, discussions and networking opportunities. In addition, it offers occasional seminars and discussion groups to provide assistance and information on topics such as funding opportunities and alternative science careers.

Experts from stem cell programs at respected research centers around the country gathered at Cedars-Sinai on April 30, 2011, for a **conference on stem cell therapy for neurological disorders**. The Department of Neurosurgery hosted the event in collaboration with the Genetics Policy Institute. The conference, called "Stem Cell Therapies for Neurological Disorders: Current Challenges to Clinical Translation," included scientific sessions on stem cell strategies for brain tumors, stroke, neurodegenerative disorders, spinal cord injury and spinal disorders.

The Cedars-Sinai Clinical Scholars Program **provides funding, education and career guidance for aspiring clinical scientists.** Participants spent their first year studying a curriculum in translational medicine and clinical research. They conduct full-time research in their second year under the supervision of a mentor. Those with projects judged to be most competitive for future funding receive assistance for up to a year of full-time research and are guided in pursuing further support, such as career development awards from the National Institutes of Health.

Through educational symposiums held throughout the year at Cedars-Sinai, **physicians and other healthcare professionals keep up with the latest information on medical advances.** About 3,900 physicians, including residents and fellows, and 2,800 allied health professionals attend these courses each year. Tens of thousands of physicians and allied health professionals also participate on multiple tumor boards and in case conferences and grand rounds series that offer educational sessions several times a month.

In Cedars-Sinai's **Surgical Skills Simulation Center**, medical students and residents gain hands-on experience as part of their training, and practicing surgeons further hone their skills. The center provides several workstations with equipment ranging from a "box trainer" for the development of basic laparoscopic surgical skills to more sophisticated, virtual reality simulators that allow surgeons to perform and be assessed for laparoscopic and endoscopic procedures.



ADDRESSING THE GROWING NEED FOR HIGHLY TRAINED NURSES

"Nursing is a very rewarding profession that will empower me to give back to the community. Cedars-Sinai has enabled me to make this dream come true," says Ruslan Marder, who works as an assistant in Imaging/MRI while training to be a nurse.

He's one of the first graduates of an innovative program to provide advanced training for nurses through online education and intense clinical instruction—the result of a partnership between Cedars-Sinai and Western Governors University (WGU).

Marder, along with fellow Cedars-Sinai employee Kathleen Cantos, was in the first graduating class to complete the university's Bachelor of Science in Nursing pre-licensure program—the nation's first online, competency-based bachelor's degree program designed to prepare students for initial licensure as registered nurses. It makes quality nursing education more accessible by combining online academics with clinical simulations and intensives supervised by onsite clinical coaches and instructors. Cedars-Sinai has partnered with the Utah-based nonprofit university to address the growing need for highly trained nurses.

"We began work on this program because the nation needs more valid, reliable mechanisms to produce baccalaureate-prepared nurses. WGU's competency-based, online pre-licensure program has proven that it can help meet that need," says Vice President and Chief Nursing Officer Linda Burnes Bolton, DrPH, RN, FAAN.

MARKING A MILESTONE IN NURSING EDUCATION: Cedars-Sinai employees Ruslan Marder (left) and Kathleen Cantos (second to left) are part of the first graduating class to complete an innovative online Bachelor of Science in Nursing pre-licensure program.



Philanthropy

Donors to Cedars-Sinai are vital partners in our work—**passionate advocates** whose philanthropic pursuits help advance scientific discovery and change people’s lives.

For Josh and Lisa Greer, teaming up with Cedars-Sinai was a natural progression in careers defined by remarkable achievement. Having risen to the top of industries spanning health, technology and entertainment, the Greers decided to dedicate themselves full-time to charitable endeavors.

Their next step was characteristically bold and visionary: **endowing a chair** in an area of research with deep meaning for them—the Joshua L. and Lisa Z. Greer Chair in Inflammatory Bowel Disease Genetics, the world’s first endowed chair in this area. “In inflammatory bowel disease, Cedars-Sinai is at the cutting-edge globally,” says Lisa Greer. The Greers’ support will take this research to an even higher level, furthering the work of inaugural chairholder Dermot P.B. McGovern, MD, PhD, and expanding treatment possibilities for painful chronic illnesses such as ulcerative colitis and Crohn’s disease, which was diagnosed in Josh Greer as a young teen. “Cedars-Sinai saved my life multiple times,” he says. “I would love to be able to stop other kids from having to go through what I did.”

← *Over the course of nearly three decades, generous, forward-thinking philanthropists have shared their vision by endowing chairs at Cedars-Sinai, enabling the Medical Center to attract leading physician-scientists with the potential to advance the understanding, treatment and eradication of disease. This symbolic chair was commissioned by the Charlotte and Davre Davidson Family to commemorate the endowed chair program. Created in 1983 by sculptor Miriam Slater, it represents the millennium of medicine and sits in the plaza lobby at Cedars-Sinai.*

George Schaeffer’s relationship with Cedars-Sinai began about a quarter-century ago with the birth of his daughter in the Labor and Delivery Unit. Eleven years later, he turned to the Medical Center for a quadruple bypass by Alfredo Trento, MD, Director of the Division of Cardiothoracic Surgery and the Estelle, Abe and Marjorie Sanders Chair in Cardiac Surgery. In gratitude, Schaeffer made a gift to support the division’s work in honor of Dr. Trento’s 20th anniversary with Cedars-Sinai, a gift he later renewed with a multi-year pledge. Cedars-Sinai has played a critical role in Schaeffer’s life—and, in turn, he is investing critical support to further advance Cedars-Sinai.

In 2011, Schaeffer made a significant **capital gift** to support the new Advanced Health Sciences Pavilion, a state-of-the-art outpatient care and research facility currently under construction that will house the hospital’s nationally renowned Heart Institute and neurosciences programs, among others. The gift, notes Dr. Trento, “will help create an incredible building where the Heart Institute’s surgeons, cardiologists and researchers can easily congregate under one roof for the rich exchange of scientific ideas, views and concepts.”

Focused on fundraising, leadership and service, the **Board of Governors** collaborates with Cedars-Sinai to shape the future of healthcare. This year, the group continued its initiative to fulfill an extraordinary \$20 million pledge in a campaign to fund the work of the Board of Governors Heart Stem Cell Center, which conducts breakthrough research led by Eduardo Marbán, MD, PhD, Director of the Cedars-Sinai Heart Institute and the Mark S. Siegel Family Professor. Dr. Marbán is leading a multidisciplinary team seeking to prove that a patient’s own cardiac stem cells can heal heart muscle damaged by a heart attack. A recently completed

Phase I clinical trial has led to significant progress in this work.

John Coleman, Chair of the Board of Governors, knows firsthand how dedicated its members are. “Our campaign co-chairs, Rick Powell and Harriet Nichols, have been tireless in their advocacy of Dr. Marbán and his pioneering investigations,” Coleman says. “Their commitment represents the Board of Governors at its best.”

Commitment is also a word that defines Elyse Walker, owner of one of the country’s leading specialty boutiques and a longtime friend of the Medical Center. Her annual Pink Party®, which in 2011 marked its seventh anniversary, is a **fundraising event** that has provided millions of dollars for the Women’s Cancer Program at the Samuel Oschin Comprehensive Cancer Institute. Combining Walker’s love of fashion and philanthropy, the Pink Party unites celebrities, the world’s most luxurious design houses and others in working to end gynecologic and breast cancers as a threat to women.

Led by Beth Karlan, MD, the Board of Governors Chair in Gynecologic Oncology, the Women’s Cancer Program offers integrated research and clinical services that reach across specialties, focusing on gender-specific cancers as well as cancers that may affect women differently than they affect men. Walker’s support is vital to the program’s ongoing impact in the field. As she sees it, it’s all about giving back. “Putting this party together each year is one of the most rewarding things I do,” she says. Her generosity improves women’s lives not only in her local community but also around the globe.

The Brain Trust, one of the **Medical Center’s dedicated support groups**, was formed in 1998 with the encouragement of Linda Burrows, a grateful patient. She sought to find a group of women who shared her

PHILANTHROPY

passion for advancing the work of Keith Black, MD, Chair of the Department of Neurosurgery and the Ruth and Lawrence Harvey Chair in Neuroscience. The group founded the Johnnie L. Cochran, Jr. Brain Tumor Center in 2007. In 2011, its members pledged \$10 million to expand Dr. Black's research team and accelerate the search for a cure for brain disease.

From brain tumor immunology, to neurodegenerative disease research, to cancer vaccine studies, The Brain Trust is a crucial ally in pioneering the field of neuroscience. "Our mission is to raise unrestricted research funds," says member Gloria Mitchell, whose colleagues include Pauletta Washington, Dale Cochran, Angelia Bibbs-Sanders and Carol Bennett, MD. "By making equipment and other resources available to scientists who have a vision, we can help them translate their research findings to patients more quickly."

For years, John Martz and his family relied on Cedars-Sinai as they confronted a host of illnesses. His wife, Toby, was treated for breast cancer and later died of it, and the family contended with a broad range of issues related to dementia. When he passed away in March 2010, Martz left a powerful legacy to spur medical research through the John Martz Charitable Remainder Trust. John's son, Harvey Martz, PhD, used the trust to establish the Martz Translational Breast Cancer Research Discovery Fund at the Samuel Oschin Comprehensive Cancer Institute and also to support research into memory disorders to honor both his mother and his father.

Dr. Martz, a psychologist practicing in Los Angeles, hopes his father's generous **planned gift** will make a difference for patients and their loved ones with those health issues. "I think it's what my parents would have wanted," he says. "Cancer is devastating, and dementia is pervasive; families suffer as well. There is an urgent need for answers leading to cures."

Carolyn Wilder and her family have received medical treatment at Cedars-Sinai since the 1980s. In 2002, Wilder required surgery, and she turned for help to a team that included the late William Young, MD, as well as Matthew Wilson, MD, and Donald Henderson, MD. "Because of them I am alive today, and I am eternally grateful," she says.

Wilder channeled that gratitude into generous gifts recognizing her doctors' skill and service through **Circle of Friends**, a program that allows patients to honor a physician, a nurse, a staff member or a volunteer who has provided outstanding care or service in the course of the patient's experience at Cedars-Sinai. Today, she continues her practice of making meaningful tributes to people throughout the extended Cedars-Sinai family. For their extraordinary care, Wilder has made contributions on behalf of the family's "amazing" primary care physician, Amanuel Sima, MD; spine experts Neel Anand, MD, and Leonel Hunt, MD; cardiologist Jeffrey Goodman, MD; and neurologist William Chow, MD, who has provided expert care for Wilder, her husband, Raymond, and their daughter, Ramona. She has also honored administrator Judy Beidleman for her dedication and attentiveness to meeting Wilder's needs. As Wilder sees it, the Medical Center offers an unbeatable combination: "It's not just the superior care they offer or the kindness and emotional support they provide. Overall, Cedars-Sinai has the best doctors in the world."

Whether they are creating an endowed chair, helping to build a new facility, contributing through a dedicated support group, hosting an event, making a planned gift or honoring a healthcare provider, Cedars-Sinai's supporters are instrumental in moving medicine forward.

MILESTONE GIFTS TO CEDARS-SINAI

July 1, 2010 - June 30, 2011

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The Brain Trust

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Cedars-Sinai is also grateful for the generosity of those individuals and families who chose to remain anonymous.

PARTNERING WITH CEDARS-SINAI

Visit cedars-sinai.edu/giving to learn more about how you can partner with Cedars-Sinai to translate research into cures.

A Healthcare Facility for the Future



Glistening sheets of double glass are already being installed to the exterior of the Advanced Health Sciences Pavilion, currently under construction on the eastern edge of the campus along San Vicente Boulevard. Early in 2012, the second of two pedestrian bridges will be put into place on the fifth level of the Pavilion, linking the new building to the Medical Center.

On schedule to open in summer 2013, the 820,000-square-foot, 11-story building will house both leading-edge outpatient care and innovative scientific research under one roof. Integrating

research and clinical care is key to ensuring that new discoveries move to patient treatment as swiftly and safely as possible.

The eco-friendly, state-of-the-art facility will house Cedars-Sinai's renowned Heart Institute and neuroscience programs and will feature open common spaces to foster information-sharing between doctors and researchers. It will include outpatient procedure suites, diagnostic imaging facilities and an education center. The design also will provide patients comfort and accessibility, with six levels of parking, a café, laboratory services and a pharmacy.

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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.



CEDARS-SINAI®

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