

City of Hope is a biomedical research and treatment center dedicated to the prevention, treatment and cure of cancer and other life-threatening diseases. Our mission is to shorten the time from initial research idea to new treatment, quickly bringing cures to patients who need them.

Since its founding in 1913, City of Hope has achieved numerous scientific breakthroughs and pioneered many lifesaving procedures that have impacted treatment worldwide.

Here are the latest facts about this institution.

INSTITUTIONAL DISTINCTIONS

- City of Hope is one of 41 Comprehensive Cancer Centers, the highest designation bestowed by the National Cancer Institute (NCI).
- City of Hope is a founding member of the National Comprehensive Cancer Network, an alliance of the top 21 cancer centers that defines and sets standards for cancer care nationally.
- City of Hope maintains the No. 1 hematology program and the No. 1 prostate cancer program in California and ranks No. 2 in the state for its breast cancer program, based on the number of patients treated. (Source: Office of Statewide Health Planning and Development)
- City of Hope has been designated an islet cell transplant center by the Juvenile Diabetes Research Foundation (JDRF), one of only 14 institutions in the United States to receive this distinction. JDRF islet cell transplant centers are programs at select institutions that enable scientists and clinicians to collaborate and transform new ideas into treatments.
- At any given time, City of Hope conducts more than 300 clinical studies, involving 30 to 40 percent of its eligible patients. The national average is less than 5 percent.
- City of Hope was awarded more than \$52 million in research grants and received nearly \$118 million in revenues from patented technologies in FY2007.

RESEARCH AND TREATMENT MILESTONES

- City of Hope speeds the path from laboratory discoveries to treatment. This has led to breakthrough cancer drugs such as Herceptin, Rituxan, Avastin and Erbitux, which are saving lives worldwide.
- Millions of people with diabetes worldwide benefit from synthetic human insulin developed through research conducted at City of Hope.
- City of Hope is a recognized leader in the field of laparoscopic and robotic-assisted laparoscopic prostate surgeries. Since 2000, City of Hope physicians have performed more radical prostatectomies than any other center in the U.S.
- A pioneer in bone marrow transplantation, City of Hope has performed more than 8,600 bone marrow and stem cell transplants, and today operates one of the largest, most successful programs of its kind in the world.
- City of Hope is the first – and currently only – institution in the world to perform a clinical study using genetically engineered T cells to recognize and attack glioma, a highly lethal form of brain cancer.

RESEARCH QUANTIFIED

One of 41
NCI-designated
Comprehensive
Cancer Centers

41



Performed more than 8,600 bone
marrow and stem cell transplants

8,600

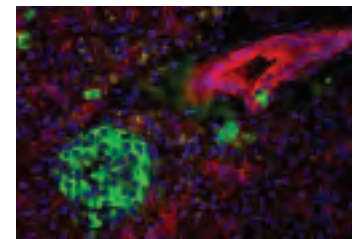


Awarded more than \$52 million in
research grants

52

Designated one of 10
islet cell resource and
transplantation centers
in preclinical trials.

10



Founding member of the National
Comprehensive Cancer Network's
top 21 cancer centers that
defines and sets standards
for cancer care

21

Currently conducts more than 300
clinical studies

300

RECENT RESEARCH BREAKTHROUGHS

Focusing on cancer stem cells

City of Hope researchers believe that understanding how normal and malignant stem cells are regulated at the molecular level can lead to effective new therapies targeting cancer stem cells. Scientists engaged in stem cell and leukemia biology are focusing on characterizing normal and malignant blood stem cells, identifying molecular events in cancerous transformation and developing new anticancer therapies.

Isolating lung cancer markers

Lung cancer remains the nation's leading cancer killer, but City of Hope researchers are making strides against the disease. Many cancers overexpress a protein receptor known as EGFR, which signals cells to divide and grow. Most non-small cell lung cancer tumors also overexpress COX-2, an enzyme associated with inflammatory conditions like arthritis. An EGFR-targeted drug is often effective against most cancers, but shows a decreased efficacy against lung cancer. City of Hope is testing the combination therapy of an EGFR-targeted cancer drug along with a COX-2 inhibitor. Initial results show that the combination may be helping to boost the efficacy of the EGFR-targeted drug against lung cancer. In the process, researchers also identified biomarkers that may help identify which patients may benefit the most from this combination therapy.

Screening more young breast cancer patients for cancer genes

Genetic testing may be a valuable tool for women with early onset breast cancer to determine if a BRCA mutation contributed to their cancer, according to researchers at City of Hope. They found that women who had early breast cancer and no close female relative who lived past age 45 on either their mother or father's side were more likely to be BRCA carriers. BRCA mutations are linked to an increased risk of breast, ovarian and fallopian tubal cancer in women. Women with mutations in the BRCA1 or BRCA2 gene who do not take preventive measures have up to a 40 percent risk of having breast cancer develop in the opposite breast within 10 years of the first cancer.

New tools for diagnosing prostate cancer

City of Hope clinicians and scientists are working together to determine whether expressed prostatic secretions (EPS) can be used to rule out cancer in patients being evaluated for prostate cancer. These studies use the methods of molecular biology to identify whether or not cancer cells are present in EPS. The goal of this research is to develop a new non-invasive tool for determining whether or not patients should proceed with further invasive testing such as a prostate biopsy.

Using the immune system to fight brain cancer

Researchers at City of Hope are genetically reprogramming disease-fighting T cells to treat malignant glioma – an aggressive and lethal form of brain cancer. Life expectancy following the diagnosis of glioma is typically less than one year. Genetic reprogramming is a novel approach to treating cancers, in which a piece of recombinant DNA is inserted into the T cells. This DNA acts like a new operating system and instructs the T cells to produce a molecule that enables them to sense the brain tumor cells. These new sensors trigger the T cell to arm itself and destroy the tumor cells, leaving the normal brain cells in the vicinity unharmed. City of Hope is one of the first institutions in the U.S. to use engineered T cells to fight brain tumors.

UNPARALLELED RESOURCES

- City of Hope created a new model for rapidly translating innovations from the research lab to the clinical setting with its Center for Biomedicine & Genetics (CBG), recognized as the nation's premier academic biologic manufacturing facility. The CBG provides researchers everywhere with the widest array of biologics manufacturing expertise.
- The institution was designated one of only 10 federally funded islet cell resource centers responsible for processing and distributing islet cells to transplant programs around the country. Islet cell transplantation is an innovative therapy for people with type 1 diabetes.

EXPANSION EFFORTS

- The Arnold and Mabel Beckman Foundation awarded City of Hope \$20 million to fund construction of a new cancer immunotherapeutics and tumor immunology building. When completed, the Arnold and Mabel Beckman Center for Cancer Immunotherapeutics and Tumor Immunology will provide a self-contained and integrated research environment where novel immunotherapeutic approaches to cancer treatment will be conceived, developed and refined.
- A gift from the Sheri and Les Biller Family Foundation established a new center at City of Hope to assist patients and families facing cancer and other life-threatening diseases. The 3,000 square-foot Sheri & Les Biller Patient and Family Resource Center is a uniquely comprehensive model that integrates and expands a wide range of important patient support services, including health education, psychological services, healing arts programs and end-of-life and bereavement care programs.

HOW CITY OF HOPE ADDS UP

- City of Hope is ranked as one of "America's Best Hospitals" in cancer and urology by *U.S. News & World Report*.
- City of Hope received full accreditation by the Joint Commission on Accreditation of Healthcare Organizations, the nation's most widely recognized health care accrediting body.
- Numerous City of Hope physicians are featured in the third edition of "America's Top Doctors for Cancer," a consumer guide to the nation's top cancer specialists.
- *The Chronicle of Philanthropy* and *The Nonprofit Times* featured City of Hope in their annual surveys of the nation's top nonprofit organizations.

