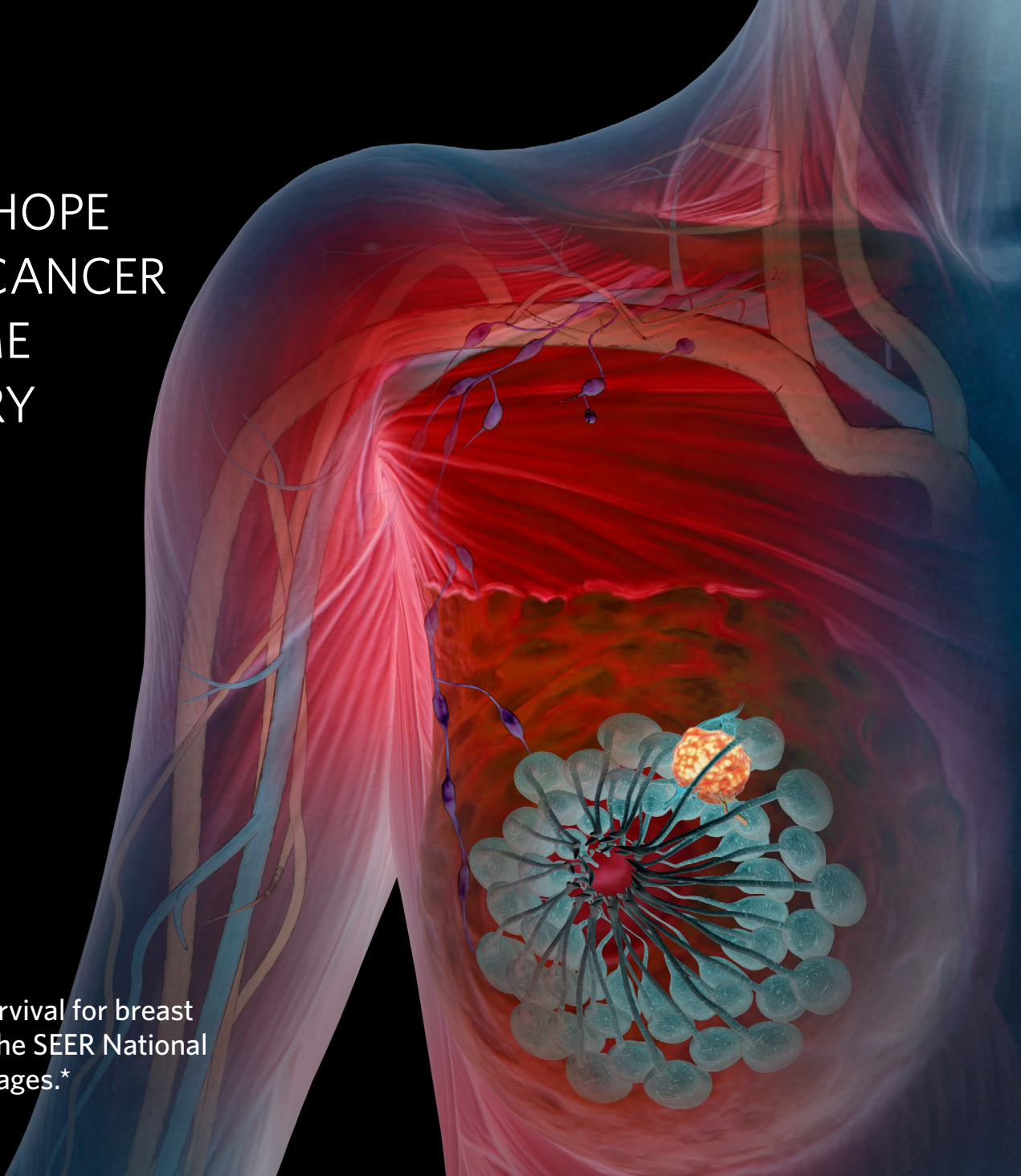


CITY OF HOPE BREAST CANCER OUTCOME SUMMARY

City of Hope's survival for breast cancer exceeds the SEER National averages at all stages.*



Breast cancer care at City of Hope: Our program provides patients with outcomes that exceed national benchmarks



Laura Kruper, M.D., M.S., is a breast surgeon at City of Hope and chief of the Division of Breast Surgery.

The Breast Cancer Program at City of Hope is internationally lauded for advancing the field of breast cancer. As a National Cancer Institute-designated comprehensive cancer center, we deliver leading-edge treatments through ground breaking evidence-based research, onsite clinical trials, and comprehensive and personalized care for each patient. We are experts at treating advanced and recurrent disease, and we believe that the best patient care comes from collaboration. City of Hope is also a founding member of the National Comprehensive Cancer Network. In that alliance, our experts work to consistently advance standards of care and improve breast cancer treatment guidelines for patients throughout the country.

Comprehensive Care Throughout Southern California

A sole focus on the development of novel ways to treat and care for people with cancer uniquely positions City of Hope to transform the future of breast cancer. Across Southern California, patients with breast cancer have access to state-of-the-art treatment and care in Duarte or through our expansive clinical network of more than 35 cancer-focused locations in

the region. Our clinical network locations make optimal care more accessible to patients.

Specialists at City of Hope take a multidisciplinary, patient-centered approach to meet the treatment needs of individual patients and the type of breast cancer they may have.

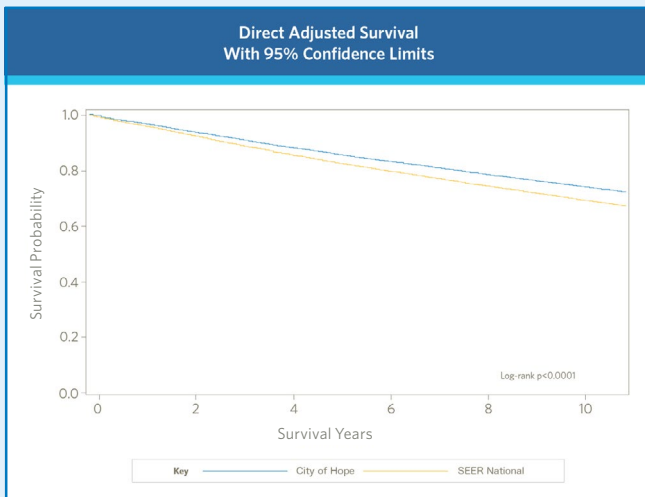
From precision screening and prevention services to advanced surgical technology, our Breast Cancer Program is equipped to provide successful outcomes. We offer:

- A 16,000-square-foot Women's Center that provides full access to the expertise provided by City of Hope in a centralized location in Duarte
- Access to the *Cancer Screening & Prevention Program*SM that supports people prior to cancer diagnosis or those who are in the early stages of their treatment journey
- State-of-the-art screening technology and high-precision diagnostic tests
- Advanced surgical techniques
- Access to a deeply collaborative, multidisciplinary health care team comprised of experts in breast cancer
- Access to innovative clinical trials — over 100 in breast cancer alone — open to high-risk patients
- Psychosocial patient and family support provided from diagnosis to remission and beyond
- Long-term follow-up and support programs through our Survivorship Program

With national recognition for **over a decade as one of the best cancer hospitals** by U.S. News & World Report and **superior survival that bests the SEER National averages at all stages of breast cancer**, the expertise of City of Hope stands on its own.†

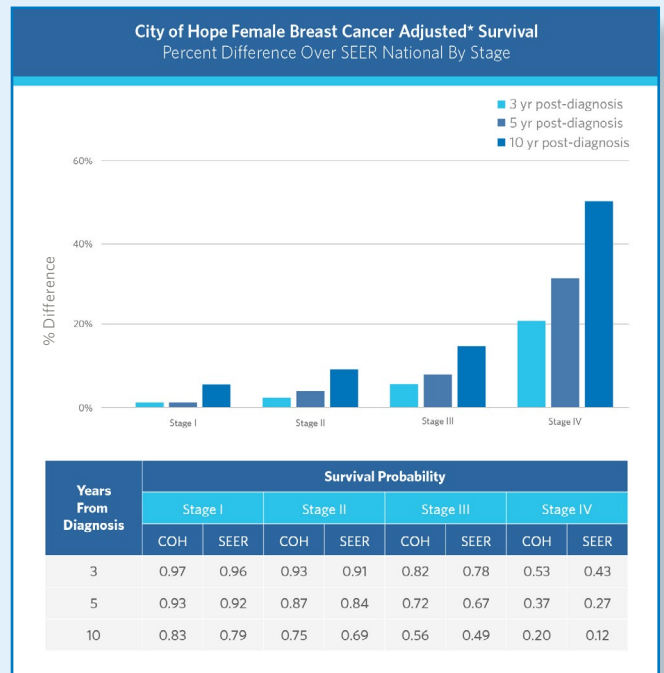
City of Hope surpasses SEER National Median Survival for female breast cancer survival rates at all stages (Stages I-IV)

City of Hope Female Breast Cancer Adjusted* Overall Survival vs SEER National (2007-2016)



*Proportional hazards regression survival estimates adjusting for age category (15-44, 45-54, 55-64, 65-74 and 75+), race (white, Black and other) and stage (II/III/IV vs I).

City of Hope Stage IV survival is 50% greater than the SEER National average 10 years postdiagnosis



The adjusted survival probabilities for City of Hope female breast cancer patients across all stages (I, II, III and IV) were compared to the SEER† National data three, five and 10 years after diagnosis. **The percent difference after 10 years was ≥5% at all stages of cancer**, with the largest differences seen in Stage IV patients regardless of year (3 yr: 21%; 5 yr: 31%; 10 yr: 50%).

The National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) Program

An authoritative source on cancer incidence and survival, the SEER Program provides cancer statistics to reduce the cancer burden among the U.S. population. It is supported by the Surveillance Research Program, which provides national leadership in cancer surveillance, using analytical tools and methodological expertise in collecting, analyzing, interpreting and disseminating reliable population-based statistics.

Why we measure outcomes

We measure outcomes to assess the quality of care we’re providing, to provide information to clinicians about our performance and to offer our patients transparency. Our outcome measurements hold us accountable to our mission of transforming the future of health by eliminating cancer and show us the areas where we can continue to improve.

† Data were derived from City of Hope cancer registry (CNeXT) and SEER November 2019 Research Data Files as the comparator. All City of Hope I Duarte patients were diagnosed from 2007 through 2016, and the City of Hope follow-up cutoff date was 12/31/2017, to align with SEER data. Survival time was based on first occurring BCA diagnosis during the time period of interest.

This Is How We Do It

Next-generation screening, prevention, diagnostic testing, surgical approaches and treatment



City of Hope's Breast Cancer Program, housed within the Women's Center, offers a full range of health care professionals and services.

Our Breast Cancer Program is dedicated to providing superior breast cancer care. We pair state-of-the-art screening and prevention technologies with specialized experts, like certified genetic counselors, who will ensure an accurate, comprehensive diagnosis of breast cancer that is crucial to treatment planning. In order to make care more accessible to our patients, our Breast Cancer Program is housed within the Women's Center at City of Hope — a centralized hub that offers a full range of health care professionals and services to meet patient needs.

As every breast cancer case is different, our experts work collaboratively with patients and their families to identify desired outcomes. Through a multidisciplinary approach, a team of specialists puts together a treatment plan to meet those goals.

Our screening and prevention services enable a tailored treatment path

Highlights of our screening and prevention services include:

- 3D mammography to better detect and locate breast cancer
- Magnetic resonance imaging and ultrasound for people with dense breasts or high breast cancer risk
- Stereotactic biopsy, which uses computer-assisted imaging to accurately guide removal of suspicious tissue

We also provide specialized screening and prevention care for women at higher risk for breast cancer. One notable example is the High Risk Breast Clinic at City of Hope | South Pasadena, where adults with a familial history of breast cancer can meet with a compassionate team of experts to determine their best options for surveillance and risk reduction.

Our ability to provide a precision medicine approach to treatment comes from our rapid and accurate breast cancer diagnoses. We offer leading-edge diagnostic tests, including but not limited to:

- Receptor testing to determine if the cancer is driven by hormones, the growth factor HER2/neu or if it is triple-negative breast cancer
- Genetic testing for BRCA1 and BRCA2 mutations
- Investigational diagnostic testing, not yet available to the general public, offered through enrollment in one of our clinical trials

The forefront of innovative surgical approaches and treatment

The multidisciplinary teams that lead the treatment of each patient with breast cancer at City of Hope are able to deliver complex, subspecialized care because of their individual expertise. While surgery is often only one part of treatment, we lead the way in innovative and thoughtful surgical approaches to treating breast cancer and strive to take a minimally invasive approach to reduce discomfort, hasten recovery time and allow for patients to proceed with postsurgical treatments sooner.

The innovative surgical approaches available at all City of Hope locations include lumpectomies and total or minimally invasive skin- and nipple-sparing mastectomies with or without breast reconstruction surgery. Our main campus location in Duarte, which houses 13 dedicated breast cancer surgeons, provides:

- Direct-to-implant postmastectomy breast reconstruction surgery that is performed without the use of tissue expanders
- Complex, autologous tissue-based reconstructions
- Oncoplastic surgery
- High precision intraoperative radiation therapy, which is administered during surgery

Additional City of Hope clinical network locations that offer oncoplastic surgery include: Arcadia, Mission Hills, Newport Beach Fashion Island, Santa Clarita, South Pasadena and Temecula, which also offers intraoperative radiation therapy. In the near future, complex reconstructive surgery will also be available at South Bay.

Our breast cancer surgeons work in conjunction with the treatment team to deliver the highest level of care at every stage of a patient's journey. After surgery, additional leading-edge treatments we offer include targeted therapies and immunotherapies, many of which have been discovered or developed at City of Hope, and the identification and monitoring of tumor markers to inform changes in treatment over time.

Compassionate Care That Supports Patients Throughout Treatment and Recovery

To help patients and their families throughout their cancer journey, City of Hope provides integrated supportive care and long-term follow-up programs to help manage the process of treatment and transition to recovery with success. Supportive care at City of Hope is also provided through our Women's Center. Here, patients have access to a wide range of resources, including but not limited to:

- A one-of-a-kind Couples Coping With Cancer Together program
- Biopsychosocial screening and psychosocial support resources, available presurgery and postsurgery
- Genetic counseling and screening programs, with specialty programs available for patients at high risk of breast cancer
- Our Positive Image CenterSM, where oncology-trained licensed cosmetologists provide a welcoming and supportive environment and can help manage appearance-related side effects of surgery and cancer treatment
- Access to specialized clinics for patients with unique treatment needs, such as young people with cancer-related fertility issues and older people who may benefit from geriatric-informed oncology expertise
- A survivorship program that helps people deal with long-term effects of treatment
- Clinical follow-up care every six months for the first two years and then annually thereafter
- Surveillance for recurrence and second cancers
- Integrative medicine, including yoga, acupuncture, meditation and massage therapy
- Healing arts workshops to restore the body and mind

For a complete listing of supportive care offered in addition to our survivorship program, visit our Supportive Care Medicine website at [CityofHope.org/supportive-care-medicine](https://www.cityofhope.org/supportive-care-medicine). Personalized assistance may be requested by contacting the Sheri & Les Biller Patient and Family Resource Center at **626-218-2273**.

Our clinical trials bring the lifesaving discoveries of tomorrow to patients today



In addition to having the first of five Beckman Research Institutes — renowned for driving scientific advances — our Duarte location is also home to three certified good manufacturing practice (GMP) facilities. The GMP facilities allow us to go from discovery to clinical trials in an expeditious manner, taking treatments to the clinic for cancers that can't wait until tomorrow. As a leader in research and innovation, our multidisciplinary team of scientists, clinical staff and manufacturing specialists work side by side to advance treatment possibilities to more patients. Home to more than 1,000 research investigators, our experts conduct nearly 1,000 clinical trials annually.

By focusing primarily on the development of groundbreaking ways to treat and care for people with cancer, City of Hope has been able to transform the future of breast health. Highlights of our latest research and trials include:

- A Phase 1 trial led by **Yuan Yuan, M.D., Ph.D.**, associate professor in the Department of Medical Oncology & Therapeutics Research, is investigating the best dose of AKT inhibitor ipatasertib given in combination with chemotherapy or immunotherapy drugs as a treatment of patients with Stage IV triple-negative breast cancer.
- **Joanne Mortimer, M.D.**, the Baum Family Professor in Women's Cancers, led a collaboration with Mount Sinai Hospital in New York and the National Cancer Institute to investigate the potential of systematic light exposure as a treatment for cancer-related fatigue in patients with breast cancer.
- A first-of-its-kind CAR T clinical trial for patients with HER2-positive breast cancer that has metastasized to the brain was the first to deliver CAR T cells directly to the brain through intraventricular delivery.
- The development of the Cancer and Aging Research Group-Breast Cancer Score — a first-of-its-kind risk assessment tool — helps oncologists make personalized treatment recommendations.
- The work of a recent study published in Nature Cancer identified how cancer cells in patients with early-stage breast cancer change and become resistant to hormone or combination therapies.

To refer a patient to a clinical trial, call **626-218-1133** or visit [CityofHope.org/clinicaltrials](https://www.cityofhope.org/clinicaltrials).

Meet our breast cancer experts



Joanne Mortimer, M.D.
Medical Oncologist

- Baum Family Professor in Women's Cancers
- Professor, Department of Medical Oncology & Therapeutics Research
- Director, Women's Cancers Program
- Associate Director for Education and Training, Comprehensive Cancer Center



Laura Kruper, M.D., M.S.
Breast Surgeon

- Associate Clinical Professor and Chief, Division of Breast Surgery, Department of Surgery
- Director, Women's Center



Christina Yeon, M.D.
Medical Oncologist

- Regional Medical Director for San Gabriel Valley
- Associate Clinical Professor, Department of Medical Oncology & Therapeutics Research



Mina Sedrak, M.D., M.S.
Medical Oncologist

- Deputy Director of Clinical Trials, Center for Cancer and Aging
- Director of Aging Research in Women's Cancers
- Assistant Professor, Department of Medical Oncology & Therapeutics Research



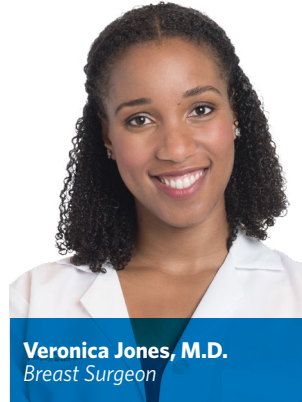
Daphne Stewart, M.D., M.S.
Medical Oncologist

- Associate Professor, Department of Medical Oncology & Therapeutics Research



Yuan Yuan, M.D., Ph.D.
Medical Oncologist

- Associate Professor, Department of Medical Oncology & Therapeutics Research



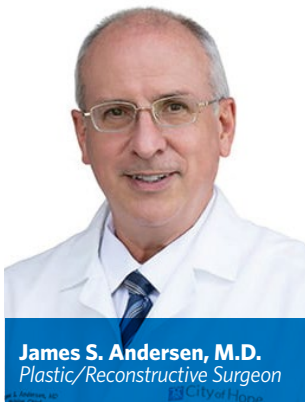
Veronica Jones, M.D.
Breast Surgeon

- Assistant Professor, Division of Breast Surgery, Department of Surgery



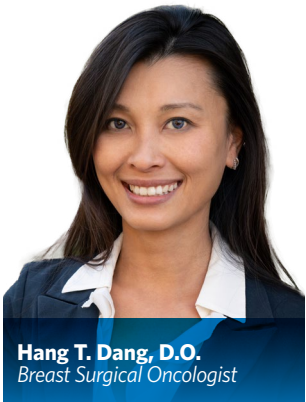
Alex K. Wong, M.D.
Plastic/Reconstructive Surgeon

- Professor and Chief, Division of Plastic Surgery, Department of Surgery



James S. Andersen, M.D.
Plastic/Reconstructive Surgeon

- Clinical Professor, Division of Plastic Surgery, Department of Surgery



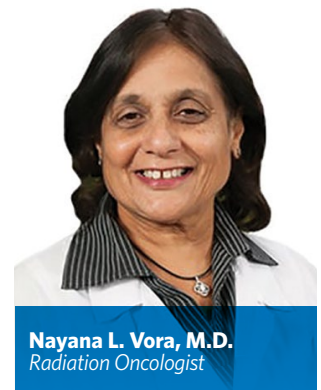
Hang T. Dang, D.O.
Breast Surgical Oncologist

- Assistant Clinical Professor, Division of Breast Surgery, Department of Surgery



Scott Glaser, M.D.
Radiation Oncologist

- Chief, Brachytherapy and Gynecological Radiotherapy
- Assistant Professor, Department of Radiation Oncology



Nayana L. Vora, M.D.
Radiation Oncologist

- Clinical Professor, Department of Diagnostic Radiology

About City of Hope

Founded in 1913, City of Hope is an independent biomedical research and treatment center for cancer, diabetes and other life-threatening diseases. A world leader in cellular immunotherapies, including chimeric antigen receptor (CAR) T cell therapy, we are one of the few institutions in the nation that innovates CAR T cell technology through our research and clinical trials, in addition to collaborations with other academic research institutions and global biopharmaceutical companies.

City of Hope is also a global pioneer in stem cell transplantation innovation, having performed over 17,000 transplants to date with exceptional survival rates, according to the Center for International Blood & Marrow Transplant Research. Human synthetic insulin, monoclonal antibodies and numerous breakthrough cancer drugs are based on technology developed at our institution.

A National Cancer Institute-designated comprehensive cancer center and a founding member of the National Comprehensive Cancer Network, City of Hope has been ranked among the



nation's "Best Hospitals" in cancer by U.S. News & World Report for 15 consecutive years and received Magnet® recognition from the American Nurses Credentialing Center. Our main campus is located near Los Angeles, with additional locations throughout Southern California and in Arizona.

To begin the referral process for your patients with breast cancer:

- Call **800-COH-4DRS (264-4377)**, Monday through Friday, 8 a.m. to 6 p.m., to speak with a patient referral specialist.
- Fax a referral request letter with a patient face sheet to **626-301-8432**.
- Complete an online referral request form at **CityofHope.org/refer-a-patient**.
- Visit **clinicaltrials.coh.org** or call **626-218-1133** to see if one of our clinical trials holds promise for your patients.

Epic CareLink is City of Hope's referring physician online portal.

You can use EpicCare to request patients' lab orders, as well as view lab results, visit summaries, medications, procedures, allergies and most other clinical documentation in the patient's chart. You can also upload relevant patient level documents to be reviewed by the City of Hope administrative team for inclusion in the patient's City of Hope chart.

Request your Epic CareLink account at carelink.CityofHope.org.

To find out more about City of Hope's Breast Cancer Program, visit CityofHope.org/breast-cancer.



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CityofHope.org



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