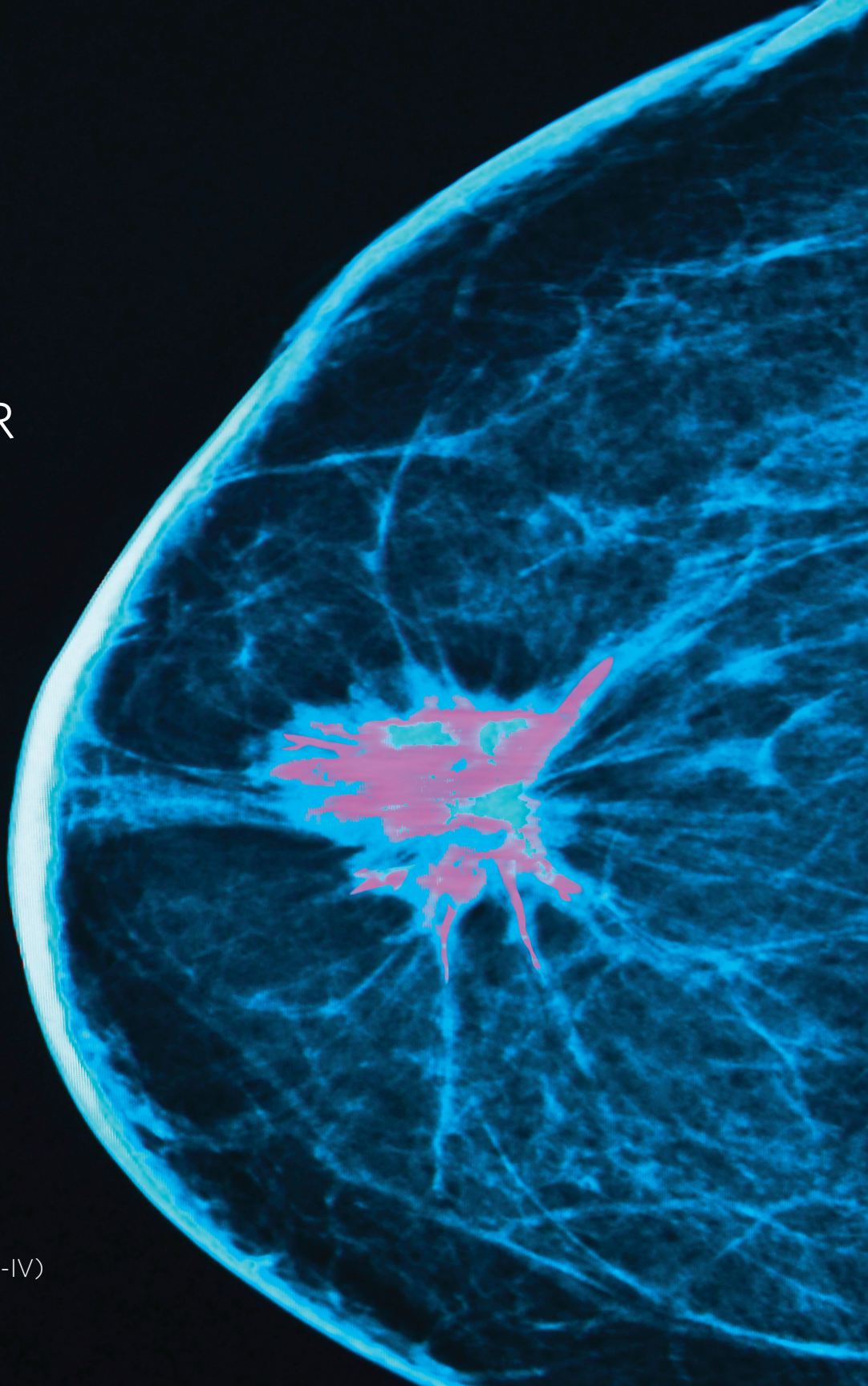


CITY OF HOPE BREAST CANCER OUTCOME SUMMARY



Surpasses SEER LA breast cancer
survival rates at all stages (Stages I-IV)



City of Hope®



**Based on SEER data on Los Angeles regional cancer facilities
See page 3 for more details*

The Women's Center at City of Hope — providing optimal outcomes in breast cancer



At the Women's Center, the patient is the focus of everything we do. Each woman we see gets a personalized treatment approach guided by her unique molecular- and genome-driven diagnosis and personal, psychosocial, lifestyle and cultural needs. Women also have access to clinical trials, evidence-based disease management approaches, psychosocial patient and family support, and long-term follow-up programs to help them and their families manage the process of treatment and recovery support beyond treatment.

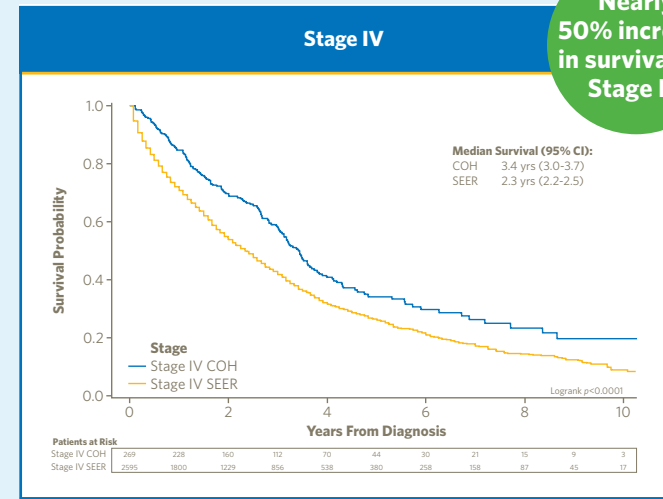
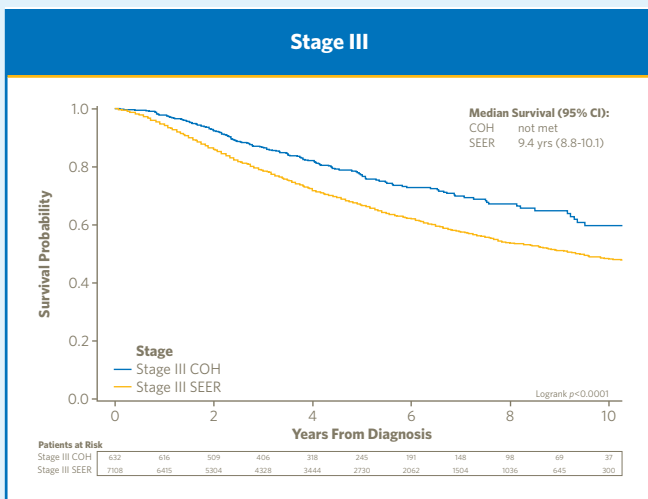
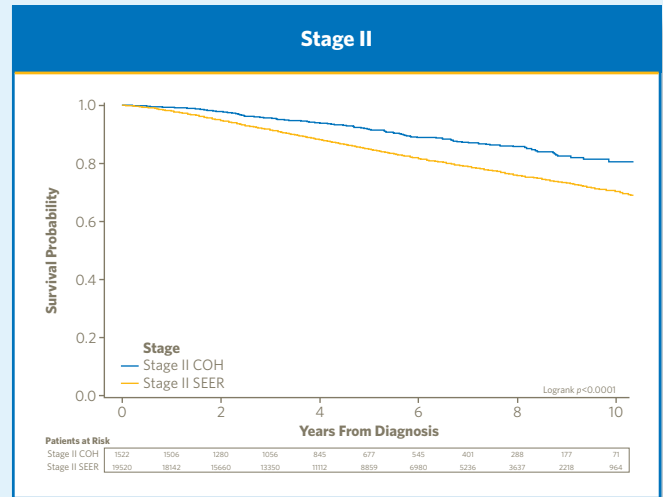
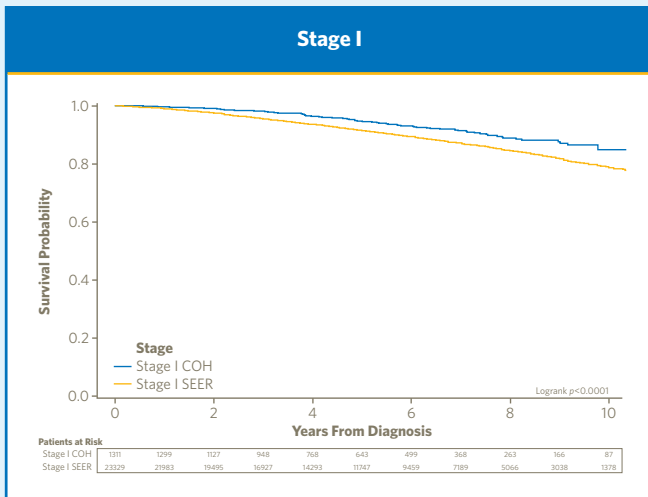
We are achieving superior outcomes by bringing together the best and the brightest clinicians and medical researchers who possess vision, passion, integrity, state-of-the-art knowledge and compassion. Patients benefit from the deeply collaborative expertise of City of Hope's multidisciplinary team — health care professionals across multiple areas who regularly communicate with each other and with the patient and her family.

A comprehensive team of health care professionals in *one central place*

The proximity of our broad interdisciplinary team to one another facilitates collaboration and communication, and it makes access to the entire health care team convenient for clinicians and patients. Our unique team includes:

- Breast and gynecologic cancer surgeons
- Medical and radiation oncologists
- Radiologists
- Geneticists and genetic counselors
- Plastic surgeons
- Mammography technologists
- Nurse practitioners, nurses and nurse coordinators
- Social workers, psychologists and psychiatrists
- Financial counselors
- Patient navigators
- Geriatric oncologists

City of Hope surpasses SEER LA breast cancer survival rates at all stages (Stages I-IV)



Nearly 50% increase in survival for Stage IV

Data were derived from City of Hope cancer registry (CNeXT) and SEER November 2017 Disease Specific Data Files, with Los Angeles Registry as the comparator. All patients were diagnosed from 2005 through 2014 and the City of Hope follow-up cutoff date was 12/31/2015, to align with SEER data.

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.

Utilizing groundbreaking treatments to achieve superior outcomes for breast cancer patients



Nipple-sparing mastectomies (NSM)

- We provide leadership and experience in minimally invasive and complex surgeries, including radio-guided surgery and NSM with direct implant-based reconstruction.
- NSM has shown significant cost savings, spares patients additional surgery and associated discomfort, and saves time for patients so they can return to their daily activities.
- In contrast to many other facilities, City of Hope plastic surgeons do not use tissue expanders.

Intraoperative radiotherapy (IORT)

- Performed at the time of surgery, IORT delivers highly targeted, high-dose radiation directly to the tumor bed, sparing surrounding tissue and organs while reducing side effects and ongoing visits for radiation therapy.

Targeted therapies and immunotherapies

- We offer a wide range of targeted therapies and immunotherapies that are effective and safe; many of these treatments have been discovered and developed at City of Hope.

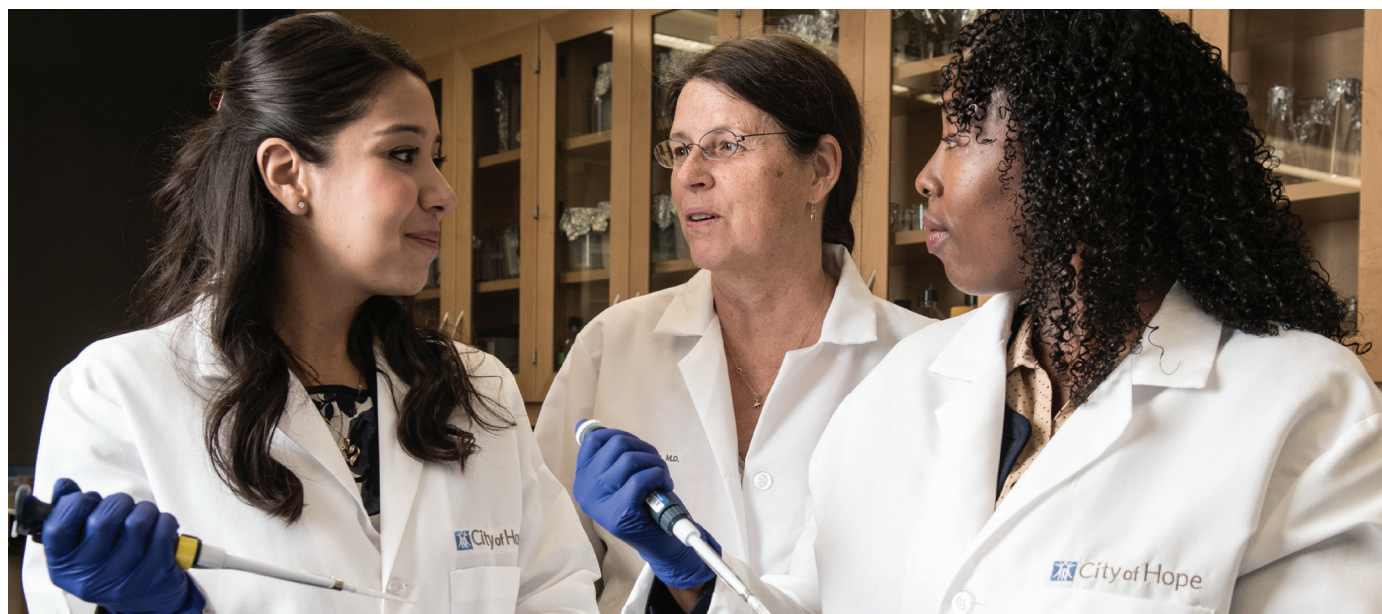
Tumor markers

- We routinely identify tumor markers to predict the effectiveness of various targeted therapies and to inform changes in treatment strategy over time.

Onsite assistance to help patients before, during and after their procedures

- **Biopsychosocial screening:** a tool developed by City of Hope to track patients and their partners before, during and after treatment to identify areas of possible concern
- **Genetic testing and counseling:** for patients with a history of familial cancers
- **Specialized clinics:** for patients with special needs such as young women with issues regarding fertility and older and/or frail patients who would benefit from geriatric oncology expertise

Providing innovative research and clinical trials onsite



Graduate student Christina Jacobo (left), graduate student Jazma Tapia (right) and Victoria Seewaldt, M.D., Ruth Ziegler Chair in Population Sciences

City of Hope has a **"bench to bedside"** approach that is unlike any other cancer center. We conduct leading-edge research and are constantly evaluating new drugs designed to treat premalignant conditions, as well as novel compounds that target advanced metastatic disease. Patients at City of Hope may qualify to participate in a test of these new investigational therapies.

City of Hope currently conducts more than 500 clinical trials, enrolling more than 6,200 patients.

Our current breast cancer investigations include:

- Development of chimeric antigen receptor (CAR)-based T cell immunotherapy for the treatment of solid tumors, including HER2+ cancers
- A study evaluating the efficacy of intracavitary/ intratumoral and intraventricular delivery of CAR T cells to treat HER2+ breast cancer brain metastases
- Development and testing of a HER2-labeled imaging agent
- Use of cryoablation in the FROST trial as an alternative to surgery
- A study of neoadjuvant endocrine therapy in ER-positive, HER2-negative patients to investigate the combination of letrozole and ribociclib
- Several studies of triple-negative breast cancer, including a phase 2 trial to evaluate the safety and efficacy of pembrolizumab in combination with the selective androgen receptor modulator GTX-024
- Testing the safety and tolerability of a tyrosine kinase inhibitor in older patients with HER2+ breast cancer
- Nontherapeutic research, including:
 - Random periareolar fine needle aspiration in patients with identified pathologic atypia to identify biomarkers
 - Use of MRI in breast cancer screening and the management of breast cancer in uninsured or under-insured high-risk women
 - Studies focusing on older adults with breast cancer to identify risk factors for treatment side effects and develop interventions to decrease these risks

Our customized *Survivorship Program* — helping patients improve their quality of life



Our Survivorship Program helps patients deal with the long-term complications of treatment and focuses on novel approaches to improve long-term quality of life. By participating in research, our patients help us learn more about issues facing cancer survivors and provide opportunities to continually improve survivorship care for our patients.

Our Survivorship Program provides short- and long-term follow-up with patients and their families to:

- Immediately address postsurgical complications
- Manage toxicities
- Assist in early detection of recurrence
- Provide psychosocial support
- Identify other areas where intervention may be needed

“

City of Hope treated me as a person. I wasn't just a patient; a chart. I mattered ... they knew what was important to me.

”

— Kommah McDowell

Meet the leaders of our Breast Cancer Program



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



- Head of Breast Surgery Service
- Associate Clinical Professor, Department of Surgery
- Director, Women's Center

“

I love working with women; they're amazing people. They get a diagnosis that is, at times, potentially fatal, and manage to get through it while still taking care of their families and kids, coming out the other side as stronger people.”

”

— Joanne Mortimer, M.D.,
Director, Women's Cancers Program

The Women's Center at City of Hope is improving breast cancer outcomes



Dedicated to giving each patient a personalized world-class treatment experience

- The Women's Center at City of Hope is a unique resource for breast health — we offer early detection, prevention, genetic counseling and advanced breast imaging technologies, including digital mammography, breast MRI and more.
- For women needing medical intervention, the Women's Center serves as a central hub giving patients full access to the expertise of City of Hope's multidisciplinary team of health care professionals.
- We provide state-of-the-art surgical, medical and radiation therapies, including many that are not yet available to the general public.
- Our supportive care and long-term follow-up programs help women and their families manage the process of treatment and recovery.
- As part of an internationally recognized comprehensive cancer center (designated by the National Cancer Institute), our staff provides compassionate, individualized care combined with access to leading-edge technologies and treatments.



National
Comprehensive
Cancer
Network®



Call us at [800-COH-4DRS \(4377\)](tel:800-COH-4DRS) to begin the referral process for your patients with breast cancer.
Visit CityofHope.org to see if one of our clinical trials holds promise for your patients.



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City of Hope strongly supports and values the uniqueness of all individuals and promotes a work environment where diversity is embraced.